

## ■ General Description

The AME8803/8814 family of positive, linear regulators feature low quiescent current (30 $\mu$ A typ.) with low drop-out voltage, making them ideal for battery applications. The space-saving SOT-26 package is attractive for "Pocket" and "Hand Held" applications.

These rugged devices have both Thermal Shutdown, and Current Fold-back to prevent device failure under the "Worst" of operating conditions.

An additional feature is a "Power Good" detector, which pulls low when the output is out of regulation. In applications requiring a low noise, regulated supply, place a 1000pF capacitor between Bypass and ground.

The AME8803/8814 is stable with an output capacitance of 2.2 $\mu$ F or greater.

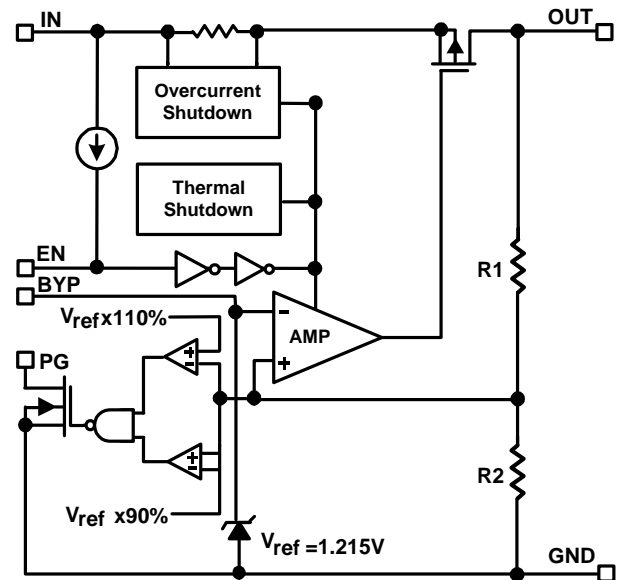
## ■ Features

- Very Low Dropout Voltage
- Guaranteed 300mA Output
- Accurate to within 1.5%
- 30 $\mu$ A Quiescent Current
- Over-Temperature Shutdown
- Current Limiting
- Short Circuit Current Fold-back
- Noise Reduction Bypass Capacitor
- Power Good Detector
- Power-Saving Shutdown Mode
- Space-Saving SOT-26
- Factory Pre-set Output Voltages
- Low Temperature Coefficient
- All AME's Lead Free Products Meet RoHS Standards

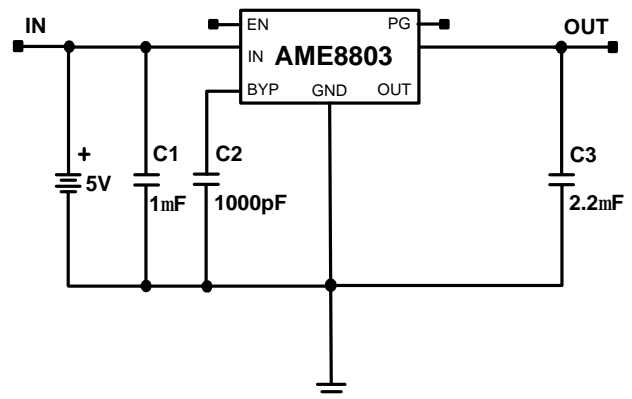
## ■ Applications

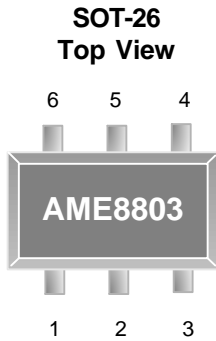
- Instrumentation
- Portable Electronics
- Wireless Devices
- Cordless Phones
- PC Peripherals
- Battery Powered Widgets
- Electronic Scales

## ■ Functional Block Diagram



## ■ Typical Application

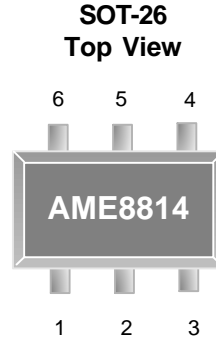


**■ Pin Configuration**

**AME 8803**

1.  $V_{IN}$
2. GND
3. EN
4. PG
5. BYP
6.  $V_{OUT}$

\* Die Attach:

**Non-Conductive Epoxy**


**AME 8814**

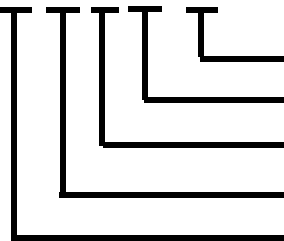
1. EN
2. GND
3. BYP
4.  $V_{OUT}$
5. GND
6.  $V_{IN}$

\* Die Attach:

**Conductive Epoxy**

**■ Ordering Information**

**AME8803** X X X X X  
**AME8814** X X X X X



**Special Feature**

**Number of Pins**

**Package Type**

**Operating Ambient Temperature Range**

**Product Grade or Option**

Product Grade or Option	Operating Ambient Temperature Range	Package Type	Number of Pins	Special Feature
A: 3.3V    1: 1.3V B: 3.0V    2: 2.0V C: 2.8V    3: 4.2V D: 2.5V    4: 4.0V E: 3.8V F: 3.6V G: 3.5V H: 2.7V I: 3.4V J: 2.85V K: 3.7V L: 1.5V M: 1.8V N: 2.9V O: 3.1V P: 4.1V Q: 4.75V R: 2.65V S: 5.0V U: 3.2V V: 3.15V W: 2.3V Y: 1.9V Z: 1.7V	E: -40°C to +85°C	E: SOT-2X	Y: 6	L: Low Profile Y: Lead Free & Low Profile Z: Lead Free

**■ Ordering Information**

Part Number	Marking*	Output Voltage	Package	Operating Ambient Temperature Range
AME8803AEEY	AAPww	3.3V	SOT-26	- 40°C to +85°C
AME8803AEEYL	AAPww	3.3V	TSOT-26	- 40°C to +85°C
AME8803AEEYY	AAPww	3.3V	TSOT-26	- 40°C to +85°C
AME8803AEEYZ	AAPww	3.3V	SOT-26	- 40°C to +85°C
AME8803BEEY	AAQww	3.0V	SOT-26	- 40°C to +85°C
AME8803BEEYL	AAQww	3.0V	TSOT-26	- 40°C to +85°C
AME8803BEEYY	AAQww	3.0V	TSOT-26	- 40°C to +85°C
AME8803BEEYZ	AAQww	3.0V	SOT-26	- 40°C to +85°C
AME8803CEEY	AARww	2.8V	SOT-26	- 40°C to +85°C
AME8803CEEYL	AARww	2.8V	TSOT-26	- 40°C to +85°C
AME8803CEEYY	AARww	2.8V	TSOT-26	- 40°C to +85°C
AME8803CEEYZ	AARww	2.8V	SOT-26	- 40°C to +85°C
AME8803DEEY	AASww	2.5V	SOT-26	- 40°C to +85°C
AME8803DEEYL	AASww	2.5V	TSOT-26	- 40°C to +85°C
AME8803DEEYY	AASww	2.5V	TSOT-26	- 40°C to +85°C
AME8803DEEYZ	AASww	2.5V	SOT-26	- 40°C to +85°C
AME8803EEEY	AATww	3.8V	SOT-26	- 40°C to +85°C
AME8803EEEYL	AATww	3.8V	TSOT-26	- 40°C to +85°C
AME8803EEEYY	AATww	3.8V	TSOT-26	- 40°C to +85°C
AME8803EEEYZ	AATww	3.8V	SOT-26	- 40°C to +85°C
AME8803FEEY	ABQww	3.6V	SOT-26	- 40°C to +85°C
AME8803FEEYL	ABQww	3.6V	TSOT-26	- 40°C to +85°C
AME8803FEEYY	ABQww	3.6V	TSOT-26	- 40°C to +85°C
AME8803FEEYZ	ABQww	3.6V	SOT-26	- 40°C to +85°C

Note: ww represents the date code and pls refer to Date Code Rule before Package Dimension.

\* A line on top of the first character represents lead free plating such as AAP

Please consult AME sales office or authorized Rep./Distributor for output voltage and package type availability.

**■ Ordering Information (contd.)**

<b>Part Number</b>	<b>Marking*</b>	<b>Output Voltage</b>	<b>Package</b>	<b>Operating Ambient Temperature Range</b>
AME8803GEEY	ACHww	3.5V	SOT-26	- 40°C to +85°C
AME8803GEEYL	ACHww	3.5V	TSOT-26	- 40°C to +85°C
AME8803GEEYY	ACHww	3.5V	TSOT-26	- 40°C to +85°C
AME8803GEEYZ	ACHww	3.5V	SOT-26	- 40°C to +85°C
AME8803HEEY	AGKww	2.7V	SOT-26	- 40°C to +85°C
AME8803HEEYL	AGKww	2.7V	TSOT-26	- 40°C to +85°C
AME8803HEEYY	AGKww	2.7V	TSOT-26	- 40°C to +85°C
AME8803HEEYZ	AGKww	2.7V	SOT-26	- 40°C to +85°C
AME8803IEEY	AEQww	3.4V	SOT-26	- 40°C to +85°C
AME8803IEEYL	AEQww	3.4V	TSOT-26	- 40°C to +85°C
AME8803IEEYY	AEQww	3.4V	TSOT-26	- 40°C to +85°C
AME8803IEEYZ	AEQww	3.4V	SOT-26	- 40°C to +85°C
AME8803JEEY	AGSww	2.85V	SOT-26	- 40°C to +85°C
AME8803JEEYL	AGSww	2.85V	TSOT-26	- 40°C to +85°C
AME8803JEEYY	AGSww	2.85V	TSOT-26	- 40°C to +85°C
AME8803JEEYZ	AGSww	2.85V	SOT-26	- 40°C to +85°C
AME8803KEEY	AHUww	3.7V	SOT-26	- 40°C to +85°C
AME8803KEEYL	AHUww	3.7V	TSOT-26	- 40°C to +85°C
AME8803KEEYY	AHUww	3.7V	TSOT-26	- 40°C to +85°C
AME8803KEEYZ	AHUww	3.7V	SOT-26	- 40°C to +85°C
AME8803LEEY	AJKww	1.5V	SOT-26	- 40°C to +85°C
AME8803LEEYL	AJKww	1.5V	TSOT-26	- 40°C to +85°C
AME8803LEEYY	AJKww	1.5V	TSOT-26	- 40°C to +85°C
AME8803LEEYZ	AJKww	1.5V	SOT-26	- 40°C to +85°C
AME8803MEEY	AJLww	1.8V	SOT-26	- 40°C to +85°C
AME8803MEEYL	AJLww	1.8V	TSOT-26	- 40°C to +85°C
AME8803MEEYY	AJLww	1.8V	TSOT-26	- 40°C to +85°C

**■ Ordering Information (contd.)**

Part Number	Marking*	Output Voltage	Package	Operating Ambient Temperature Range
AME8803MEEYZ	AJLww	1.8V	SOT-26	- 40°C to +85°C
AME8803NEEY	ALAw	2.9V	SOT-26	- 40°C to +85°C
AME8803NEEYL	ALAw	2.9V	TSOT-26	- 40°C to +85°C
AME8803NEEYY	ALAw	2.9V	TSOT-26	- 40°C to +85°C
AME8803NEEYZ	ALAw	2.9V	SOT-26	- 40°C to +85°C
AME8803OEEY	ALBww	3.1V	SOT-26	- 40°C to +85°C
AME8803OEEYL	ALBww	3.1V	TSOT-26	- 40°C to +85°C
AME8803OEEYY	ALBww	3.1V	TSOT-26	- 40°C to +85°C
AME8803OEEYZ	ALBww	3.1V	SOT-26	- 40°C to +85°C
AME8803SEEY	AQZww	5.0V	SOT-26	- 40°C to +85°C
AME8803SEEYL	AQZww	5.0V	TSOT-26	- 40°C to +85°C
AME8803SEEYY	AQZww	5.0V	TSOT-26	- 40°C to +85°C
AME8803SEEYZ	AQZww	5.0V	SOT-26	- 40°C to +85°C
AME8814AEEY	AIEww	3.3V	SOT-26	- 40°C to +85°C
AME8814AEEYL	AIEww	3.3V	TSOT-26	- 40°C to +85°C
AME8814AEEYY	AIEww	3.3V	TSOT-26	- 40°C to +85°C
AME8814AEEYZ	AIEww	3.3V	SOT-26	- 40°C to +85°C
AME8814BEEY	AIFww	3.0V	SOT-26	- 40°C to +85°C
AME8814BEEYL	AIFww	3.0V	TSOT-26	- 40°C to +85°C
AME8814BEEYY	AIFww	3.0V	TSOT-26	- 40°C to +85°C
AME8814BEEYZ	AIFww	3.0V	SOT-26	- 40°C to +85°C
AME8814CEEY	AIGww	2.8V	SOT-26	- 40°C to +85°C
AME8814CEEYL	AIGww	2.8V	TSOT-26	- 40°C to +85°C
AME8814CEEYY	AIGww	2.8V	TSOT-26	- 40°C to +85°C
AME8814CEEYZ	AIGww	2.8V	SOT-26	- 40°C to +85°C
AME8814DEEY	AIHww	2.5V	SOT-26	- 40°C to +85°C
AME8814DEEYL	AIHww	2.5V	TSOT-26	- 40°C to +85°C

**■ Ordering Information (contd.)**

<b>Part Number</b>	<b>Marking*</b>	<b>Output Voltage</b>	<b>Package</b>	<b>Operating Ambient Temperature Range</b>
AME8814DEEYY	AlHww	2.5V	TSOT-26	- 40°C to +85°C
AME8814DEEYZ	AlHww	2.5V	SOT-26	- 40°C to +85°C
AME8814EEEY	AlIww	3.8V	SOT-26	- 40°C to +85°C
AME8814EEEYL	AlIww	3.8V	TSOT-26	- 40°C to +85°C
AME8814EEEYY	AlIww	3.8V	TSOT-26	- 40°C to +85°C
AME8814EEEYZ	AlIww	3.8V	SOT-26	- 40°C to +85°C
AME8814FEEY	AlJww	3.6V	SOT-26	- 40°C to +85°C
AME8814FEEYL	AlJww	3.6V	TSOT-26	- 40°C to +85°C
AME8814FEEYY	AlJww	3.6V	TSOT-26	- 40°C to +85°C
AME8814FEEYZ	AlJww	3.6V	SOT-26	- 40°C to +85°C
AME8814GEEY	AlKww	3.5V	SOT-26	- 40°C to +85°C
AME8814GEEYL	AlKww	3.5V	TSOT-26	- 40°C to +85°C
AME8814GEEYY	AlKww	3.5V	TSOT-26	- 40°C to +85°C
AME8814GEEYZ	AlKww	3.5V	SOT-26	- 40°C to +85°C
AME8814HEEY	AlLww	2.7V	SOT-26	- 40°C to +85°C
AME8814HEEYL	AlLww	2.7V	TSOT-26	- 40°C to +85°C
AME8814HEEYY	AlLww	2.7V	TSOT-26	- 40°C to +85°C
AME8814HEEYZ	AlLww	2.7V	SOT-26	- 40°C to +85°C
AME8814IEEY	AlMww	3.4V	SOT-26	- 40°C to +85°C
AME8814IEEYL	AlMww	3.4V	TSOT-26	- 40°C to +85°C
AME8814IEEYY	AlMww	3.4V	TSOT-26	- 40°C to +85°C
AME8814IEEYZ	AlMww	3.4V	SOT-26	- 40°C to +85°C
AME8814JEEY	AlNww	2.85V	SOT-26	- 40°C to +85°C
AME8814JEEYL	AlNww	2.85V	TSOT-26	- 40°C to +85°C
AME8814JEEYY	AlNww	2.85V	TSOT-26	- 40°C to +85°C
AME8814JEEYZ	AlNww	2.85V	SOT-26	- 40°C to +85°C
AME8814KEEY	AlOww	3.7V	SOT-26	- 40°C to +85°C

**■ Ordering Information (contd.)**

Part Number	Marking*	Output Voltage	Package	Operating Ambient Temperature Range
AME8814KEEYL	AIOww	3.7V	TSOT-26	- 40°C to +85°C
AME8814KEEYY	AIOww	3.7V	TSOT-26	- 40°C to +85°C
AME8814KEEYZ	AIOww	3.7V	SOT-26	- 40°C to +85°C
AME8814LEEY	AJDww	1.5V	SOT-26	- 40°C to +85°C
AME8814LEEYL	AJDww	1.5V	TSOT-26	- 40°C to +85°C
AME8814LEEYY	AJDww	1.5V	TSOT-26	- 40°C to +85°C
AME8814LEEYZ	AJDww	1.5V	SOT-26	- 40°C to +85°C
AME8814MEEY	AJEww	1.8V	SOT-26	- 40°C to +85°C
AME8814MEEYL	AJEww	1.8V	TSOT-26	- 40°C to +85°C
AME8814MEEYY	AJEww	1.8V	TSOT-26	- 40°C to +85°C
AME8814MEEYZ	AJEww	1.8V	SOT-26	- 40°C to +85°C
AME8814NEEY	AKYww	2.9V	SOT-26	- 40°C to +85°C
AME8814NEEYL	AKYww	2.9V	TSOT-26	- 40°C to +85°C
AME8814NEEYY	AKYww	2.9V	TSOT-26	- 40°C to +85°C
AME8814NEEYZ	AKYww	2.9V	SOT-26	- 40°C to +85°C
AME8814OEEY	AKZww	3.1V	SOT-26	- 40°C to +85°C
AME8814OEEYL	AKZww	3.1V	TSOT-26	- 40°C to +85°C
AME8814OEEYY	AKZww	3.1V	TSOT-26	- 40°C to +85°C
AME8814OEEYZ	AKZww	3.1V	SOT-26	- 40°C to +85°C
AME8814SEEY	ARDww	5.0V	SOT-26	- 40°C to +85°C
AME8814SEEYL	ARDww	5.0V	TSOT-26	- 40°C to +85°C
AME8814SEEYY	ARDww	5.0V	TSOT-26	- 40°C to +85°C
AME8814SEEYZ	ARDww	5.0V	SOT-26	- 40°C to +85°C

**■ Absolute Maximum Ratings**

Parameter	Maximum	Unit
Input Voltage	8	V
Output Current	$P_D / (V_{IN} - V_O)$	mA
Input, Output Voltage	GND - 0.3 to $V_{IN} + 0.3$	V
ESD Classification	B*	

Caution: Stress above the listed absolute maximum rating may cause permanent damage to the device.

\* HBM B: 2000V~3999V

**■ Recommended Operating Conditions**

Parameter	Symbol	Rating	Unit
Ambient Temperature Range	$T_A$	- 40 to +85	°C
Junction Temperature Range	$T_J$	- 40 to +125	°C

**■ Thermal Information**

Parameter	Package	Die Attach	Symbol	Maximum	Unit
Thermal Resistance* (Junction to Case)	SOT-26	Conductive Epoxy	$\theta_{JA}$	81	°C / W
		Non-Conductive Epoxy		140	
Thermal Resistance (Junction to Ambient)		Conductive Epoxy	$\theta_{JC}$	260	
		Non-Conductive Epoxy		280	
Internal Power Dissipation		Conductive Epoxy	$P_D$	400	mW
		Non-Conductive Epoxy		400	
Maximum Junction Temperature				150	°C
Solder Iron (10 Sec)**				350	

\* Measure  $\theta_{JC}$  on center of molding compound if IC has no tab.

\*\* MIL-STD-202G 210F



**■ Electrical Specifications**

TA = 25°C unless otherwise noted

Parameter	Symbol	Test Condition	Min	Typ	Max	Units	
Input Voltage	$V_{IN}$		Note 1		7	V	
Output Voltage Accuracy	$V_O$	$I_O=1mA$	-1.5		1.5	%	
Dropout Voltage	$V_{DROPOUT}$	$I_O=300mA$ $V_O=V_{O(NOM)}-2.0%$	$1.2V \leq V_{O(NOM)} \leq 2.0V$	See chart	1300	mV	
			$2.0V < V_{O(NOM)} \leq 2.8V$		400		
			$2.8V < V_{O(NOM)}$		300		
Output Current	$I_O$	$V_O > 1.2V$	300			mA	
Current Limit	$I_{LIM}$	$V_O > 1.2V$	300	450		mA	
Short Circuit Current	$I_{SC}$	$V_O < 0.8V$		150	300	mA	
Quiescent Current	$I_Q$	$I_O=0mA$		30	50	$\mu A$	
Ground Pin Current	$I_{GND}$	$I_O=1mA$ to 300mA		35		$\mu A$	
Line Regulation	$REG_{LINE}$	$I_O=1mA$ $V_{IN}=V_O+1$ to $V_O+2$	$1.2V \leq V_O \leq 1.4V$	-0.2		0.2	%
			$1.4V < V_O \leq 2.0V$	-0.15		0.15	
			$2.0V < V_O < 4.0V$	-0.1	0.02	0.1	
			$4.0V \leq V_O$	-0.4	0.2	0.4	
Load Regulation	$REG_{LOAD}$	$I_O=1mA$ to 300mA	-1	0.2	1	%	
Over Temperature Shutdown	OTS			150		°C	
Over Temperature Hysteresis	OTH			30		°C	
$V_O$ Temperature Coefficient	TC			30		ppm/°C	
Power Supply Rejection	PSRR	$I_O=100mA$ $C_O=2.2\mu F$	$f=1kHz$		50	dB	
			$f=10kHz$		20		
			$f=100kHz$		15		
Output Voltage Noise	eN	$f=10Hz$ to 100kHz $I_O=10mA$			30	$\mu V_{rms}$	
EN Input Threshold	$V_{EH}$	$V_{IN}=2.7V$ to 7V	2.0		$V_{in}$	V	
	$V_{EL}$	$V_{IN}=2.7V$ to 7V	0		0.4	V	
EN Input Bias Current	$I_{EH}$	$V_{EN}=V_{IN}$ , $V_{IN}=2.7V$ to 7V			0.1	$\mu A$	
	$I_{EL}$	$V_{EN}=0V$ , $V_{IN}=2.7V$ to 7V			0.5	$\mu A$	
Shutdown Supply Current	$I_{SD}$	$V_{IN}=5V$ , $V_O=0V$ , $V_{EN}<V_{EL}$		0.5	1	$\mu A$	
Shutdown Output Voltage	$V_{O,SD}$	$I_O=0.4mA$ , $V_{EN}<V_{EL}$	0		0.4	V	
Output Under Voltage	$V_{UV}$	$2.5V \leq V_{O(NOM)} \leq 5.0V$			85	% $V_{O(NOM)}$	
		$1.2V \leq V_{O(NOM)} < 2.5V$			75		
Output Over Voltage	$V_{OV}$	$2.5V \leq V_{O(NOM)} \leq 5.0V$	115			% $V_{O(NOM)}$	
		$1.2V \leq V_{O(NOM)} < 2.5V$	125				
PG Leakage Current	$I_{LC}$	$V_{PG}=7V$			1	$\mu A$	
PG Voltage Rating	$V_{PG}$	$V_O$ in regulation			7	V	
PG Voltage Low	$V_{OL}$	$I_{SINK}=0.4mA$			0.4	V	

 Note1:  $V_{IN(MIN)}=V_{OUT}+V_{DROPOUT}$ 

Note2: To prevent the Short Circuit Current protection feature from being prematurely activated, the input voltage must be applied before a current source load is applied.

## ■ Detailed Description

The AME8803/8814 family of CMOS regulators contain a PMOS pass transistor, voltage reference, error amplifier, over-current protection, thermal shutdown, and Power Good detection circuitry.

The P-channel pass transistor receives data from the error amplifier, over-current shutdown, and thermal protection circuits. During normal operation, the error amplifier compares the output voltage to a precision reference. Over-current and Thermal shutdown circuits become active when the junction temperature exceeds 150°C, or the current exceeds 300mA. During thermal shutdown, the output voltage remains low. Normal operation is restored when the junction temperature drops below 120°C.

The AME8803/8814 switches from voltage mode to current mode when the load exceeds the rated output current. This prevents over-stress. The AME8803 also incorporates current foldback to reduce power dissipation when the output is short circuited. This feature becomes active when the output drops below 0.8volts, and reduces the current flow by 65%. Full current is restored when the voltage exceeds 0.8 volts.

## ■ External Capacitors

The AME8803/8814 is stable with an output capacitor to ground of 2.2 $\mu$ F or greater. Ceramic capacitors have the lowest ESR, and will offer the best AC performance. Conversely, Aluminum Electrolytic capacitors exhibit the highest ESR, resulting in the poorest AC response. Unfortunately, large value ceramic capacitors are comparatively expensive. One option is to parallel a 0.1 $\mu$ F ceramic capacitor with a 10 $\mu$ F Aluminum Electrolytic. The benefit is low ESR, high capacitance, and low overall cost.

A second capacitor is recommended between the input and ground to stabilize  $V_{in}$ . The input capacitor should be at least 0.1 $\mu$ F to have a beneficial effect.

A third capacitor can be connected between the BY-PASS pin and GND. This capacitor can be a low cost Polyester Film variety between the value of 0.001 ~ 0.01 $\mu$ F. A larger capacitor improves the AC ripple rejection, but also makes the output come up slowly. This "Soft" turn-on is desirable in some applications to limit turn-on surges.

All capacitors should be placed in close proximity to the pins. A "Quiet" ground termination is desirable. This can be achieved with a "Star" connection.

## ■ Enable

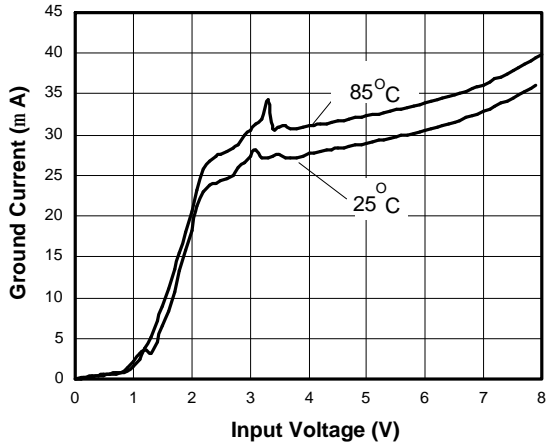
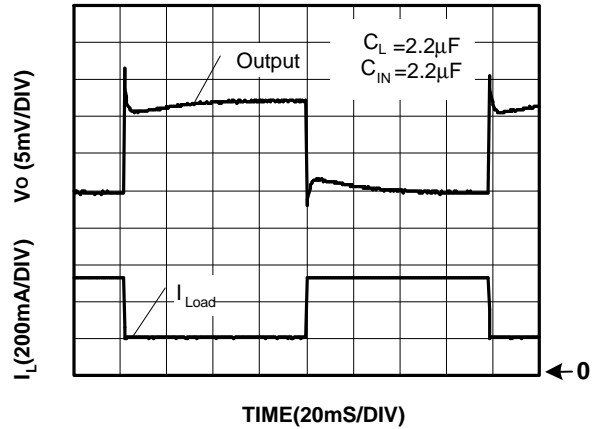
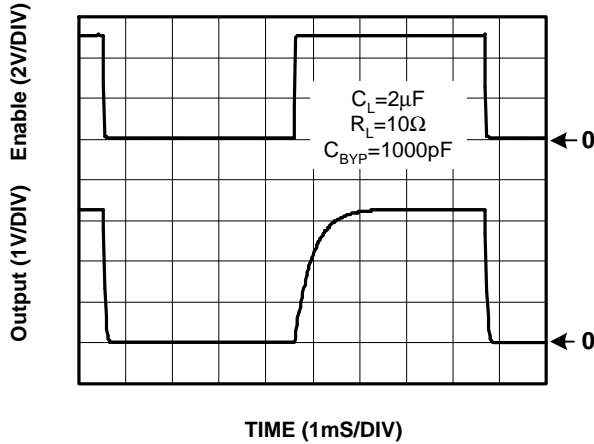
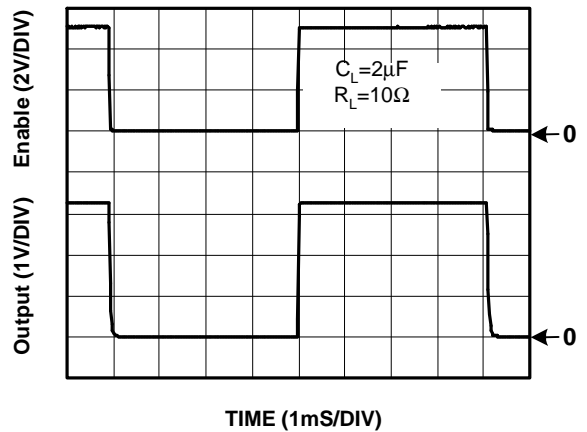
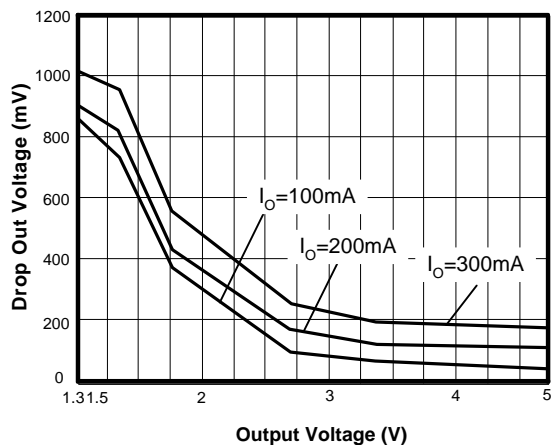
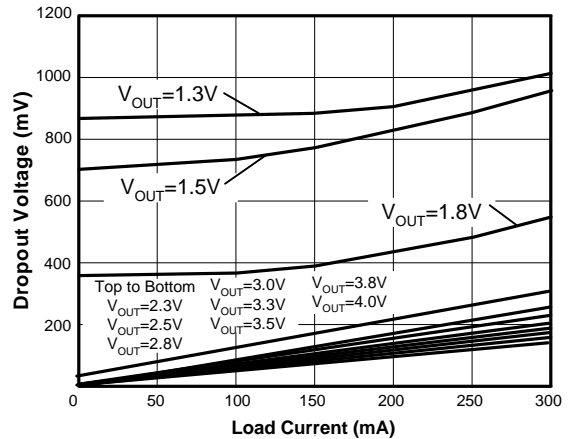
The Enable pin normally floats high. When actively, pulled low, the PMOS pass transistor shuts off, and all internal circuits are powered down. In this state, the quiescent current is less than 1 $\mu$ A. This pin behaves much like an electronic switch.

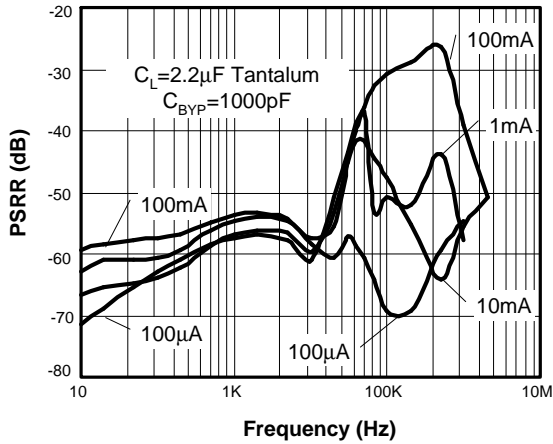
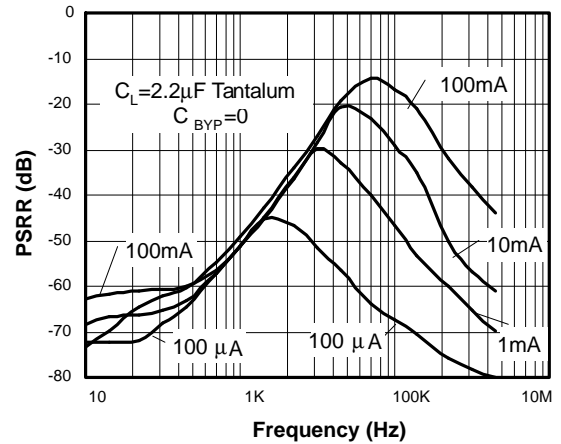
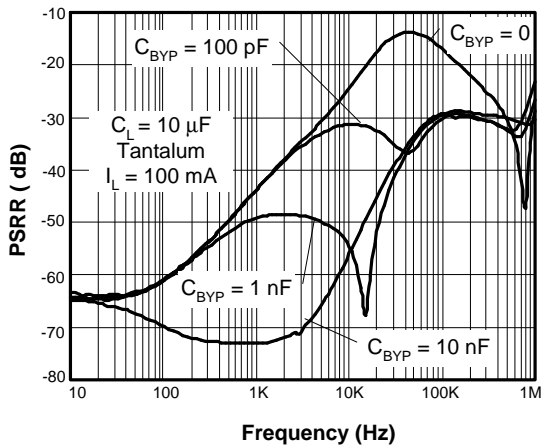
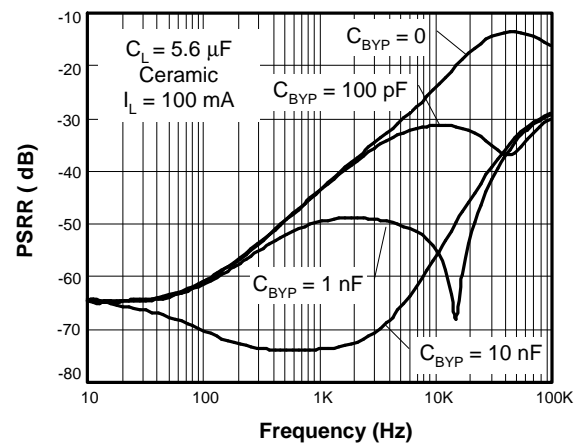
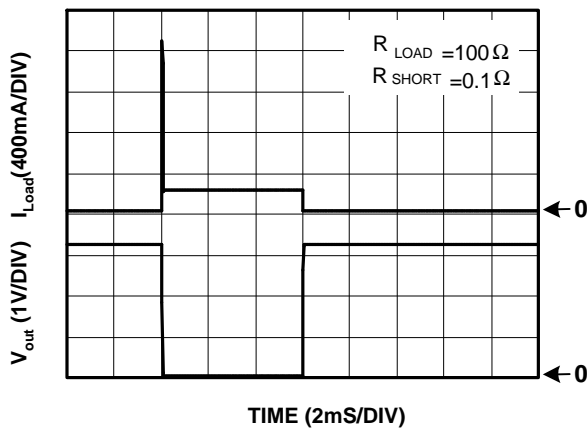
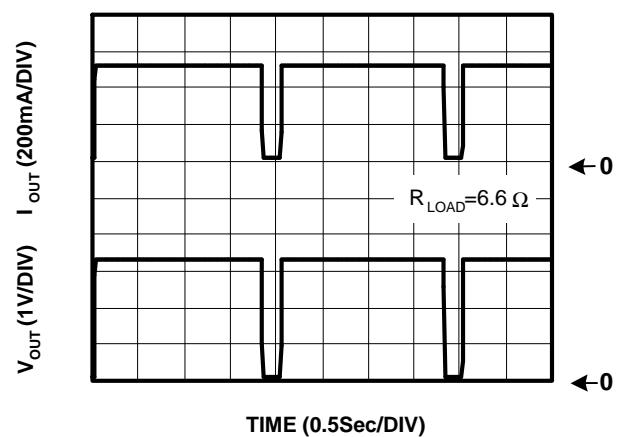
## ■ Power Good

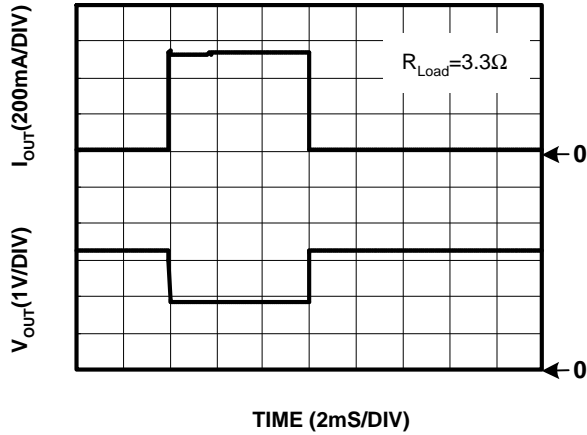
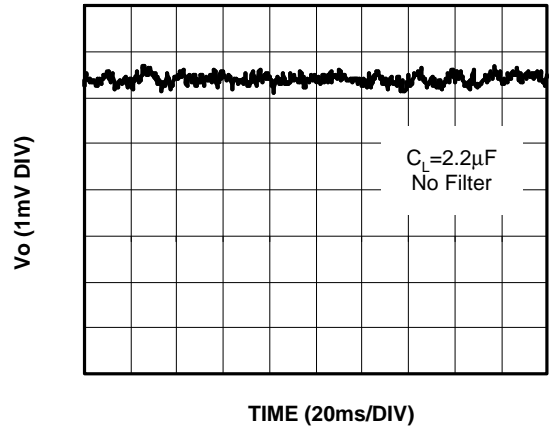
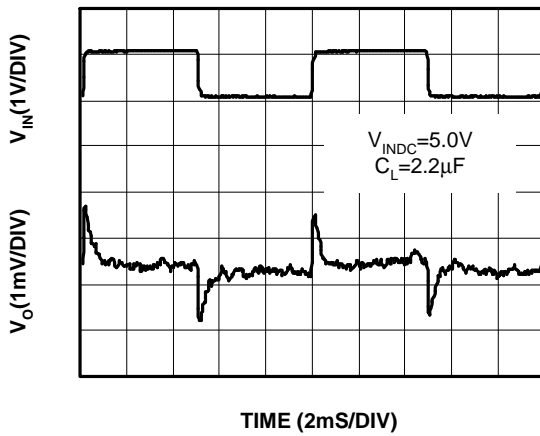
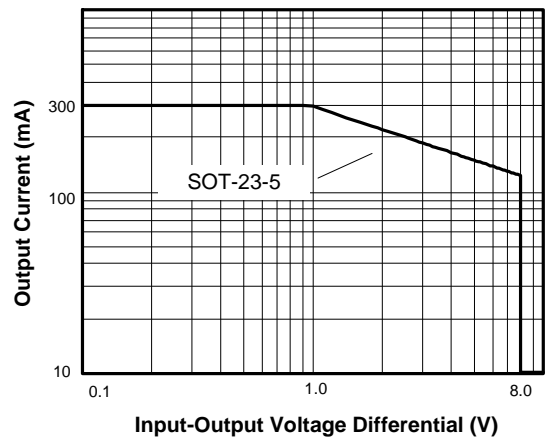
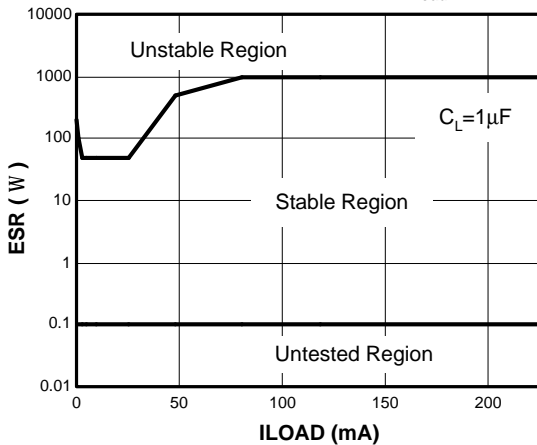
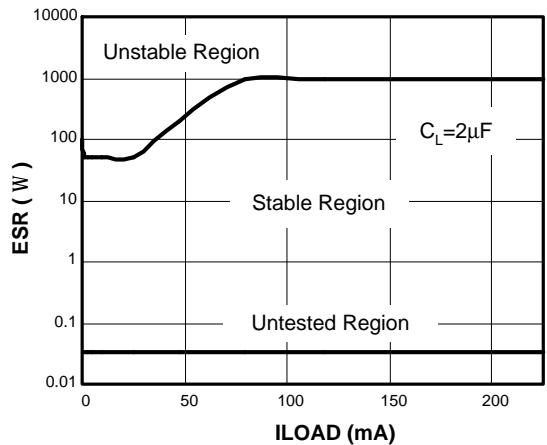
The AME8803/8814 includes the Power Good feature. When the output is not within  $\pm 15\%$  of the specified voltage, it pulls low. This can occur under the following conditions:

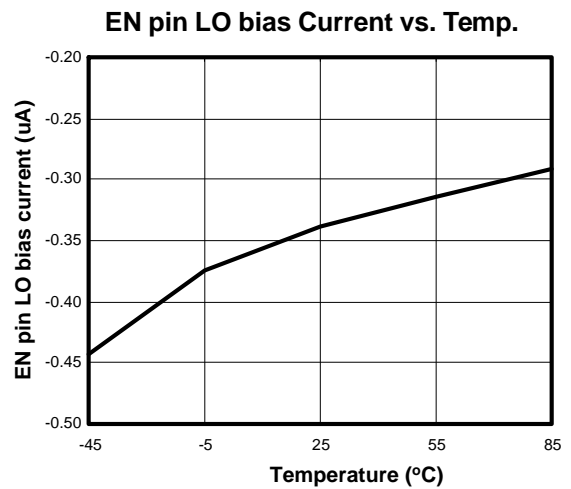
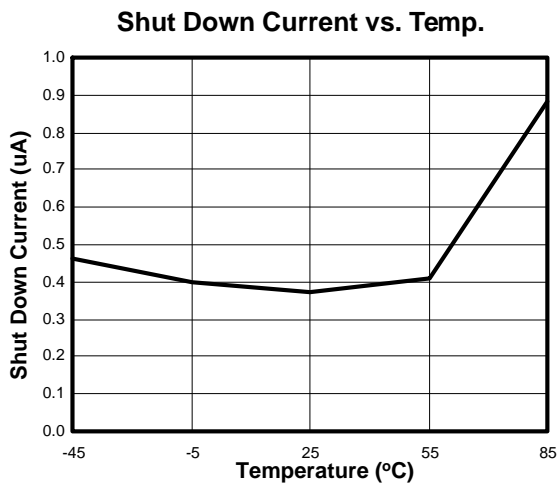
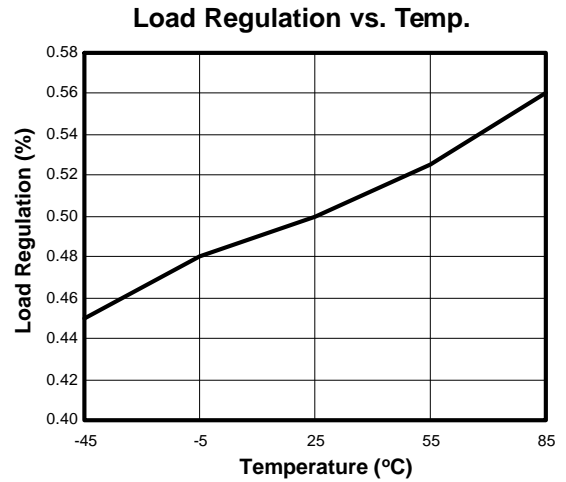
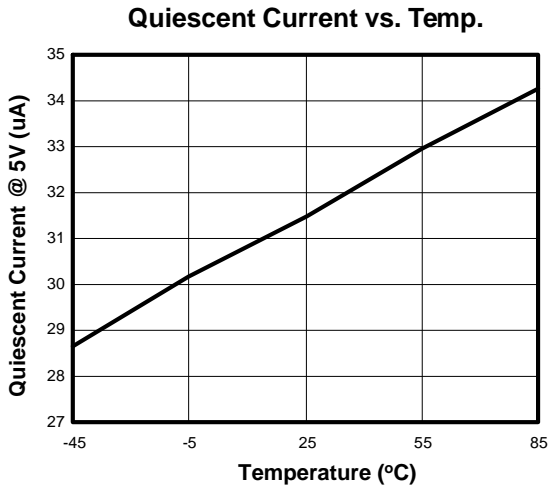
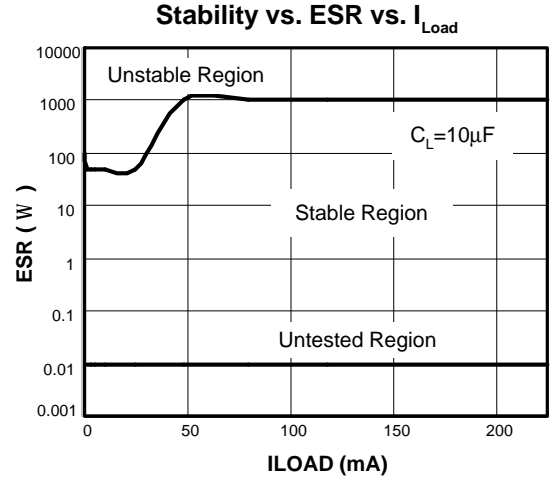
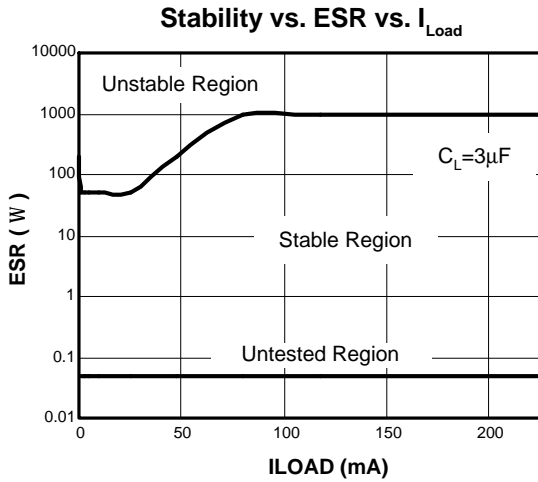
- 1) Input Voltage too low.
- 2) During Over-Temperature.
- 3) During Over-Current.
- 4) If output is pulled up.

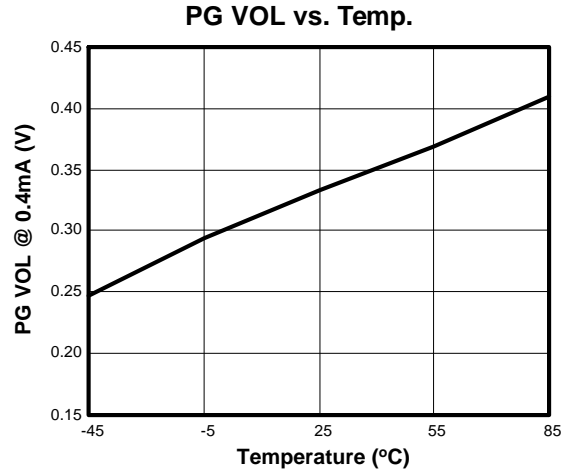
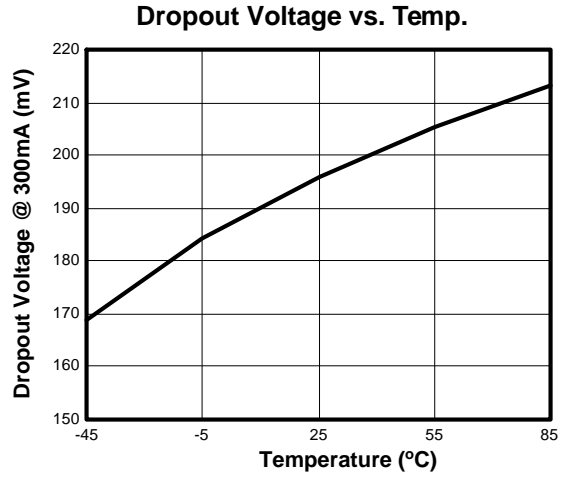
*(Note: PG pin is an open-drain output.)*

**Ground Current vs. Input Voltage**

**Load Step (1mA-300mA)**

**Chip Enable Transient Response**

**Chip Enable Transient Response**

**Drop Out Voltage vs. Output Voltage**

**Drop Out Voltage vs. Load Current**


**Power Supply Rejection Ratio**

**Power Supply Rejection Ratio**

**Power Supply Rejection Ratio**

**Power Supply Rejection Ratio**

**Short Circuit Response**

**Overtemperature Shutdown**


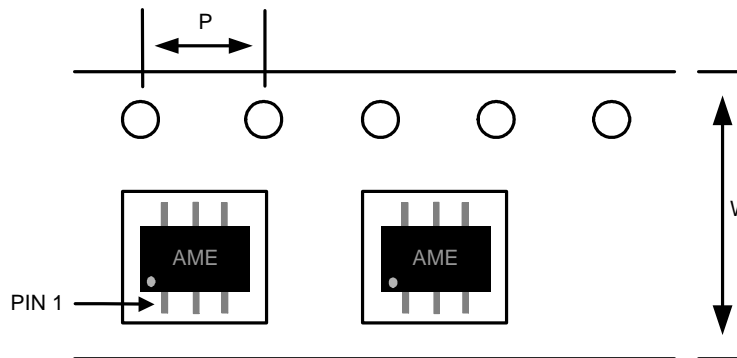
**Current Limit Response**

**Noise Measurement**

**Line Transient Response**

**Safe Operating Area**

**Stability vs. ESR vs.  $I_{Load}$** 

**Stability vs. ESR vs.  $I_{Load}$** 






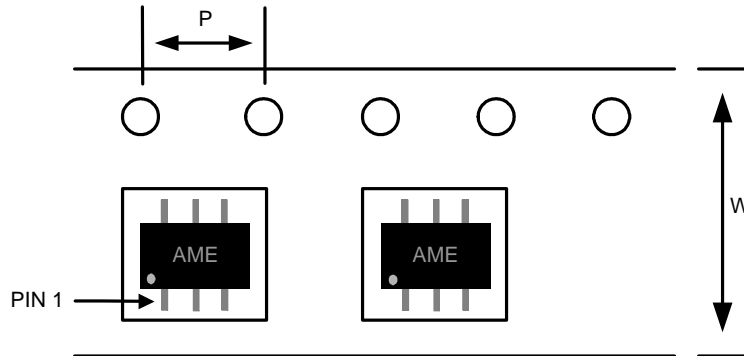
**■ Date Code Rule**

Marking			Date Code		Year
A	A	A	W	W	xxx0
A	A	A	W	<u>W</u>	xxx1
A	A	A	<u>W</u>	W	xxx2
A	A	A	<u>W</u>	<u>W</u>	xxx3
A	A	<u>A</u>	W	W	xxx4
A	A	<u>A</u>	W	<u>W</u>	xxx5
A	A	<u>A</u>	<u>W</u>	W	xxx6
A	A	<u>A</u>	<u>W</u>	<u>W</u>	xxx7
A	<u>A</u>	A	W	W	xxx8
A	<u>A</u>	A	W	<u>W</u>	xxx9

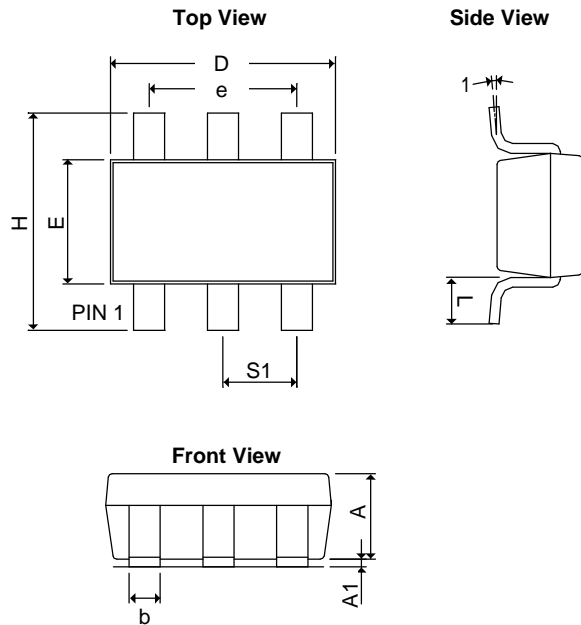
**■ Tape and Reel Dimension**
**SOT-26**

**Carrier Tape, Number of Components Per Reel and Reel Size**

Package	Carrier Width (W)	Pitch (P)	Part Per Full Reel	Reel Size
SOT-26	8.0±0.1 mm	4.0±0.1 mm	3000pcs	180±1 mm

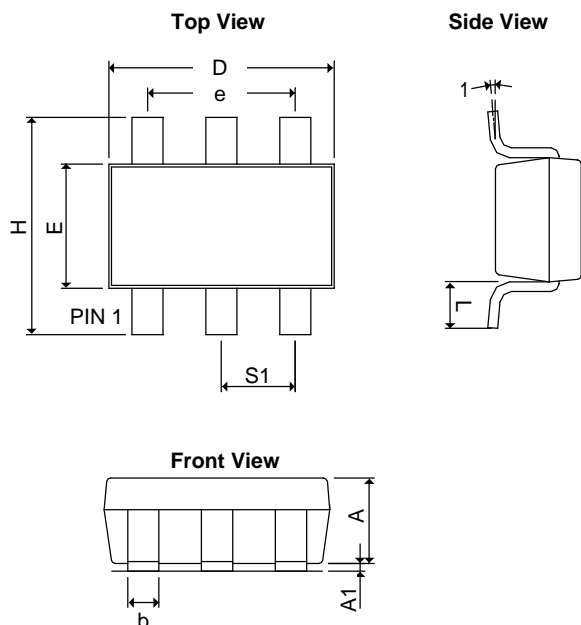


**■ Tape and Reel Dimension**
**TSOT-26**

**Carrier Tape, Number of Components Per Reel and Reel Size**

Package	Carrier Width (W)	Pitch (P)	Part Per Full Reel	Reel Size
TSOT-26	8.0±0.1 mm	4.0±0.1 mm	3000pcs	180±1 mm

**■ Package Dimension**
**SOT-26**


SYMBOLS	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	1.20REF		0.0472REF	
A <sub>1</sub>	0.00	0.15	0.0000	0.0059
b	0.30	0.55	0.0118	0.0217
D	2.70	3.10	0.1063	0.1220
E	1.40	1.80	0.0551	0.0709
e	1.90 BSC		0.0748 BSC	
H	2.60	3.00	0.10236	0.11811
L	0.37REF		0.0146REF	
q <sub>1</sub>	0°	10°	0°	10°
S <sub>1</sub>	0.95REF		0.0374REF	

**TSOT-26**


SYMBOLS	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	1.20REF		0.0472REF	
A <sub>1</sub>	0.00	0.15	0.0000	0.0059
b	0.30	0.55	0.0118	0.0217
D	2.70	3.10	0.1063	0.1220
E	1.40	1.80	0.0551	0.0709
e	1.90 BSC		0.0748 BSC	
H	2.60	3.00	0.10236	0.11811
L	0.37REF		0.0146REF	
q <sub>1</sub>	0°	10°	0°	10°
S <sub>1</sub>	0.95REF		0.0374REF	



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