

# SS26

## Surface Mount Schottky Power Rectifier

### SMB Power Surface Mount Package

... employing the Schottky Barrier principle in a metal-to-silicon power rectifier. Features epitaxial construction with oxide passivation and metal overlay contact. Ideally suited for low voltage, high frequency switching power supplies; free wheeling diodes and polarity protection diodes.

- Compact Package with J-Bend Leads Ideal for Automated Handling
- Highly Stable Oxide Passivated Junction
- Guardring for Over-Voltage Protection
- Low Forward Voltage Drop

#### Mechanical Characteristics:

- Case: Molded Epoxy
- Epoxy Meets UL94, VO at 1/8"
- Weight: 95 mg (approximately)
- Cathode Polarity Band
- Lead and Mounting Surface Temperature for Soldering Purposes: 260°C Max. for 10 Seconds
- Available in 12 mm Tape, 2500 Units per 13" Reel, Add "T3" Suffix to Part Number
- Finish: All External Surfaces Corrosion Resistant and Terminal Leads are Readily Solderable
- ESD Ratings: Machine Model = C  
Human Body Model = 3B
- Marking: SS26

#### MAXIMUM RATINGS

Rating	Symbol	Value	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	$V_{RRM}$ $V_{RWM}$ $V_R$	60	V
Average Rectified Forward Current (At Rated $V_R$ , $T_L = 95^\circ\text{C}$ )	$I_O$	2.0	A
Non-Repetitive Peak Surge Current (Surge Applied at Rated Load Conditions Halfwave, Single Phase, 60 Hz)	$I_{FSM}$	40	A
Storage/Operating Case Temperature	$T_{stg}$ , $T_C$	-55 to +150	°C
Operating Junction Temperature	$T_J$	-55 to +125	°C
Voltage Rate of Change (Rated $V_R$ , $T_J = 25^\circ\text{C}$ )	$dv/dt$	10,000	V/ $\mu\text{s}$



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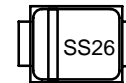
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**SCHOTTKY BARRIER  
RECTIFIER  
2.0 AMPERES  
60 VOLTS**



**SMB  
CASE 403A  
PLASTIC**

#### MARKING DIAGRAM



SS26 = Device Code

#### ORDERING INFORMATION

Device	Package	Shipping
SS26T3	SMB	2500/Tape & Reel

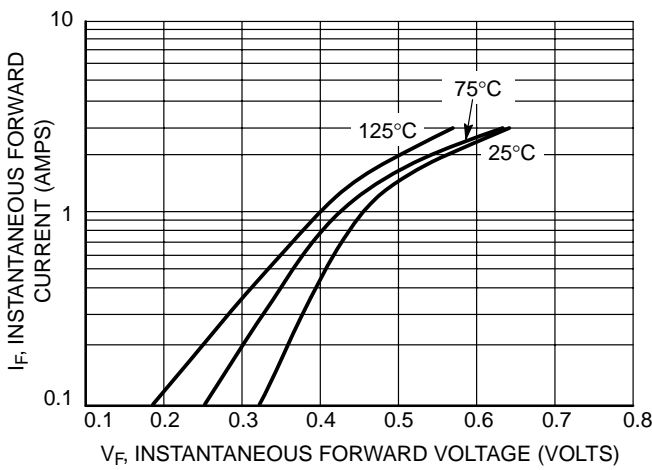
**THERMAL CHARACTERISTICS**

Characteristic	Symbol	Value	Unit
Thermal Resistance - Junction-to-Lead (Note 1)	$R_{\theta JL}$	24	$^{\circ}C/W$
Thermal Resistance - Junction-to-Ambient (Note 2)	$R_{\theta JA}$	80	$^{\circ}C/W$

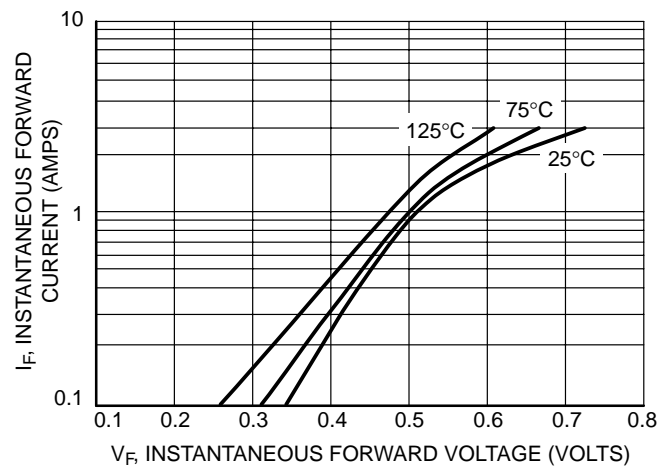
**ELECTRICAL CHARACTERISTICS**

Maximum Instantaneous Forward Voltage (Note 3)  ( $i_F = 1.0 A$ ) ( $i_F = 2.0 A$ )	$V_F$	$T_J = 25^{\circ}C$	$T_J = 125^{\circ}C$	Volts
		0.51 0.63	0.475 0.55	
Maximum Instantaneous Reverse Current (Note 3)  ( $V_R = 60 V$ )	$I_R$	$T_J = 25^{\circ}C$	$T_J = 125^{\circ}C$	mA
		0.2	10	

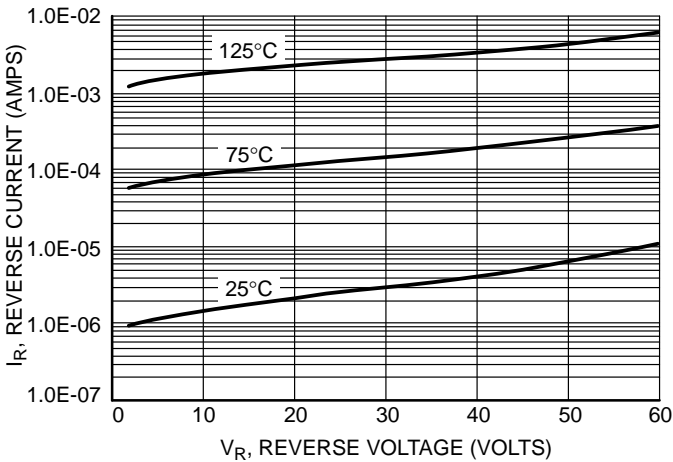
1. Mounted with minimum recommended pad size, PC Board FR4.
2. 1 inch square pad size (1 x 0.5 inch for each lead) on FR4 board.
3. Pulse Test: Pulse Width  $\leq 250 \mu s$ , Duty Cycle  $\leq 2.0\%$ .



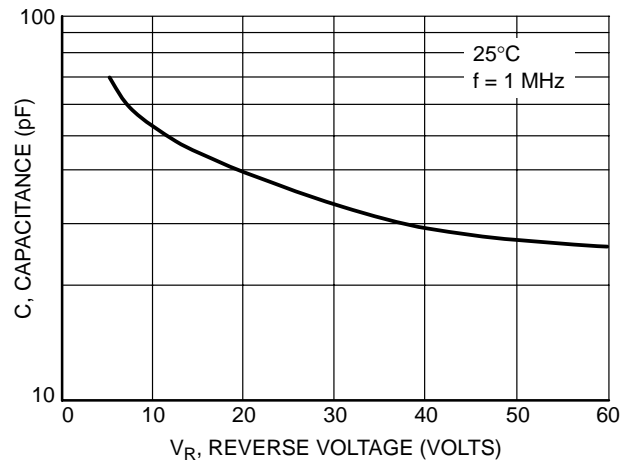
**Figure 1. Typical Forward Voltage**



**Figure 2. Maximum Forward Voltage**



**Figure 3. Typical Reverse Current**



**Figure 4. Typical Capacitance**

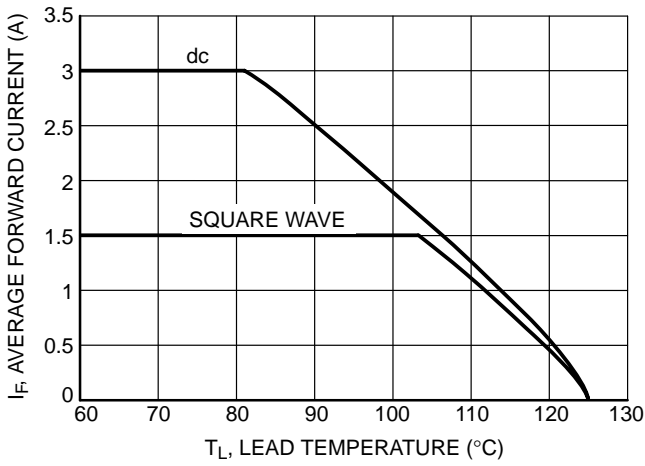


Figure 5. Current Derating - Junction to Lead

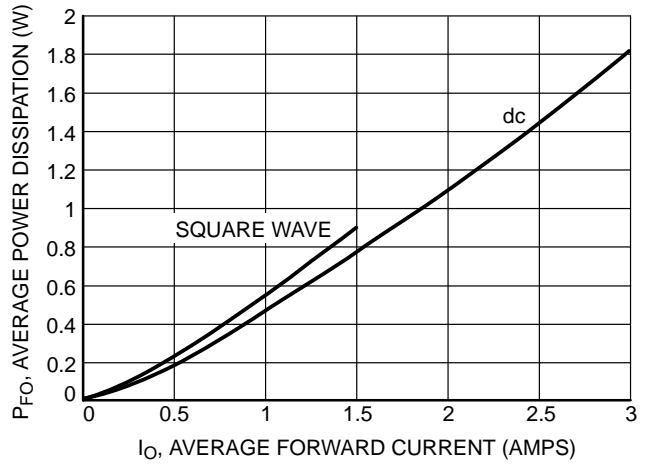


Figure 6. Forward Power Dissipation

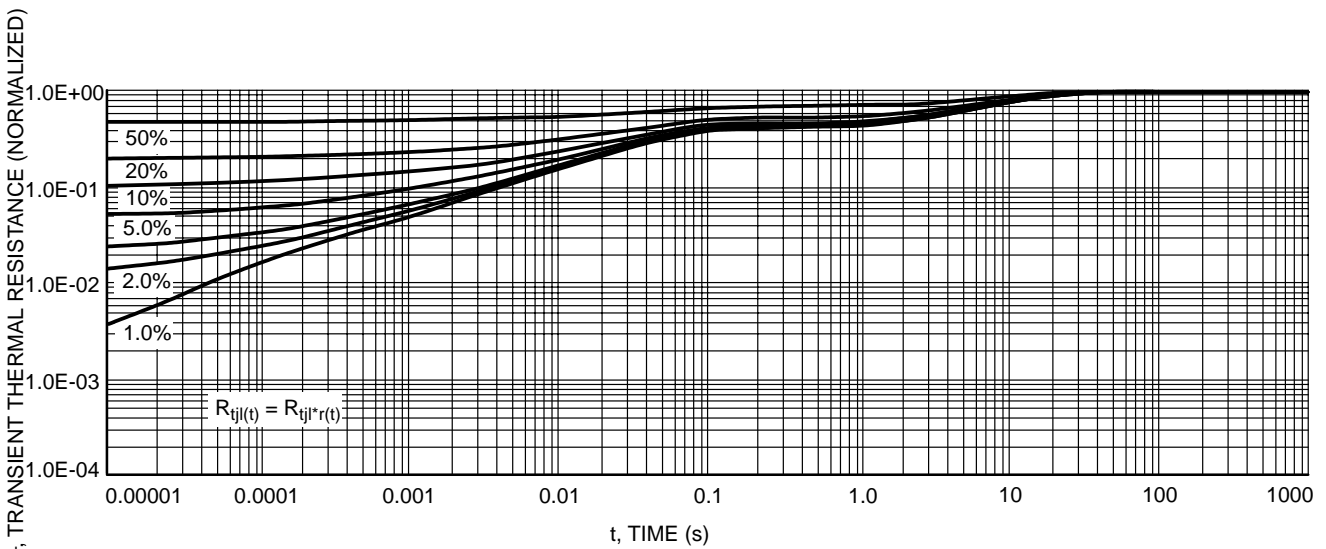


Figure 7. Thermal Response - Junction to Case

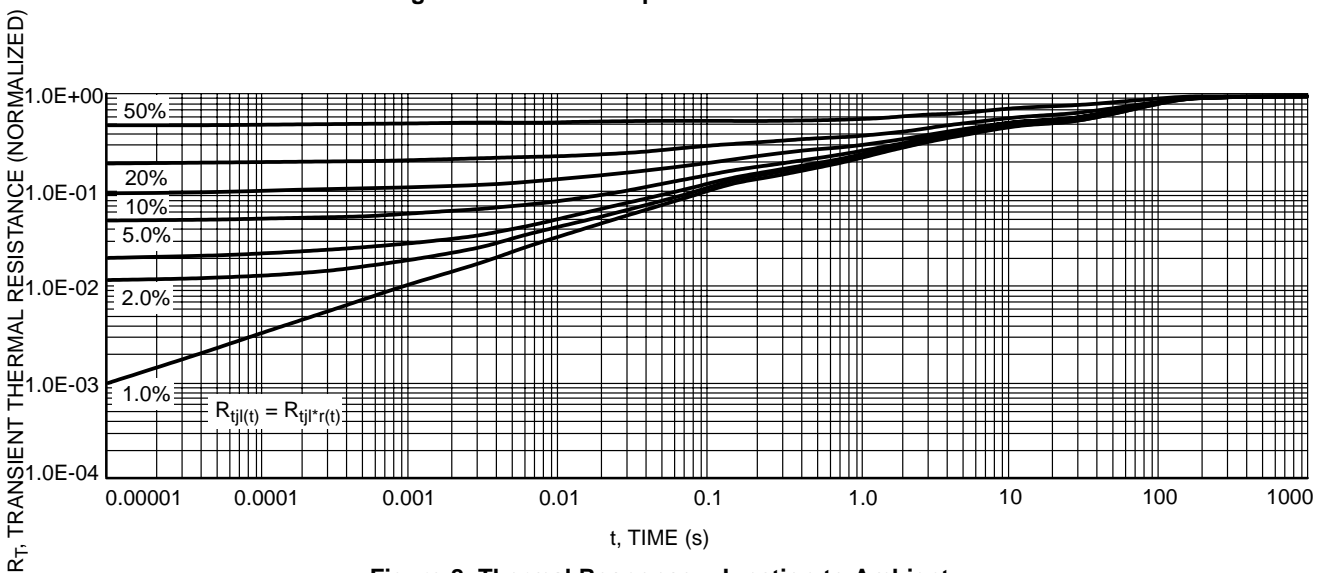
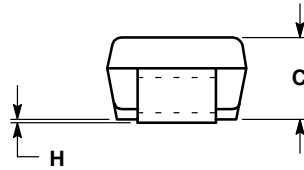
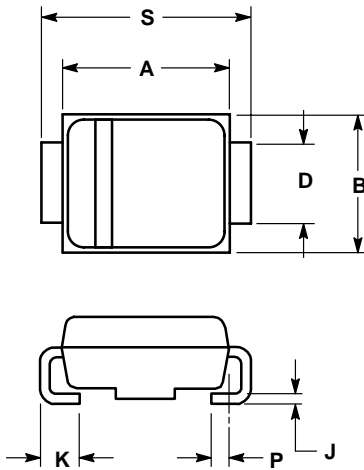


Figure 8. Thermal Response - Junction to Ambient

# SS26

## PACKAGE DIMENSIONS

### SMB PLASTIC PACKAGE CASE 403A-03 ISSUE D

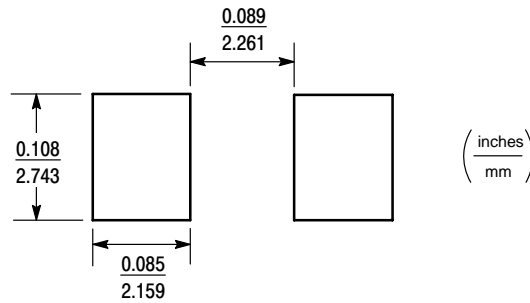



#### NOTES:

1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
2. CONTROLLING DIMENSION: INCH.
3. D DIMENSION SHALL BE MEASURED WITHIN DIMENSION P.

DIM	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.160	0.180	4.06	4.57
B	0.130	0.150	3.30	3.81
C	0.075	0.095	1.90	2.41
D	0.077	0.083	1.96	2.11
H	0.0020	0.0060	0.051	0.152
J	0.006	0.012	0.15	0.30
K	0.030	0.050	0.76	1.27
P	0.020 REF		0.51 REF	
S	0.205	0.220	5.21	5.59

### MINIMUM SOLDER PAD SIZES



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