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°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°C)	dv/dt	10,000	V/μs

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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
SS26	SMB	2500/Tape & Reel

THERMAL CHARACTERISTICS

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

ELECTRICAL CHARACTERISTICS

Maximum Instantaneous Forward Voltage (Note 3.)	v_F	**T_J = 25°C**	**T_J = 125°C**	Volts
(i_F = 1.0 A) (i_F = 2.0 A)		0.51 0.63	0.475 0.55	
Maximum Instantaneous Reverse Current (Note 3.)	I_R	**T_J = 25°C**	**T_J = 125°C**	mA
(V_R = 60 V)		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 ≤ 250 μs, Duty Cycle ≤ 2.0%.

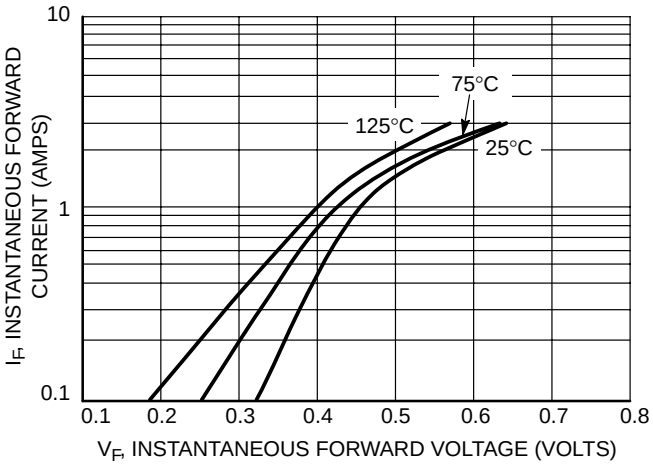


Figure 1. Typical Forward Voltage

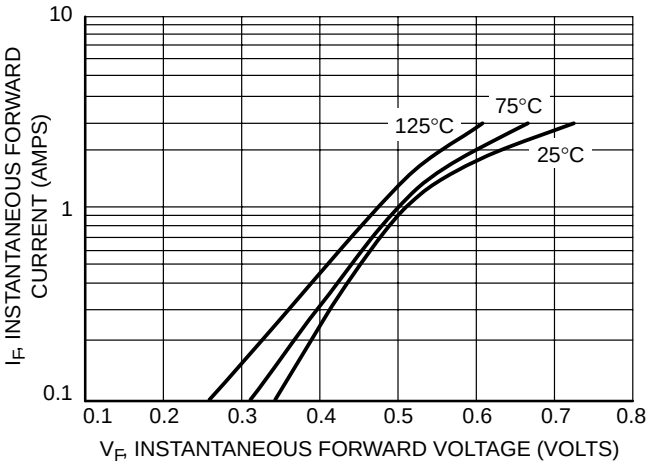


Figure 2. Maximum Forward Voltage

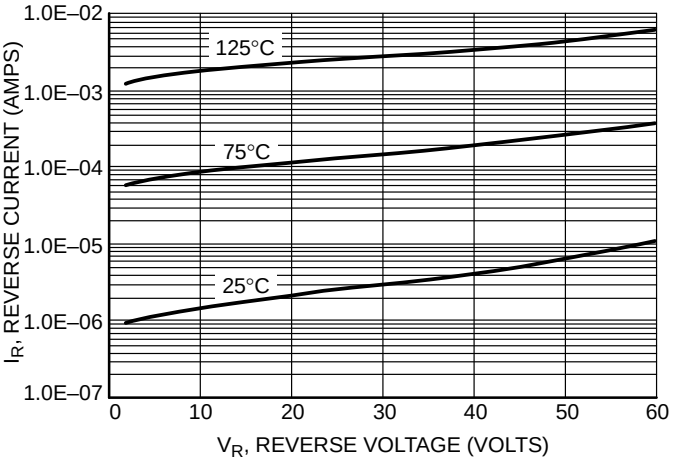


Figure 3. Typical Reverse Current

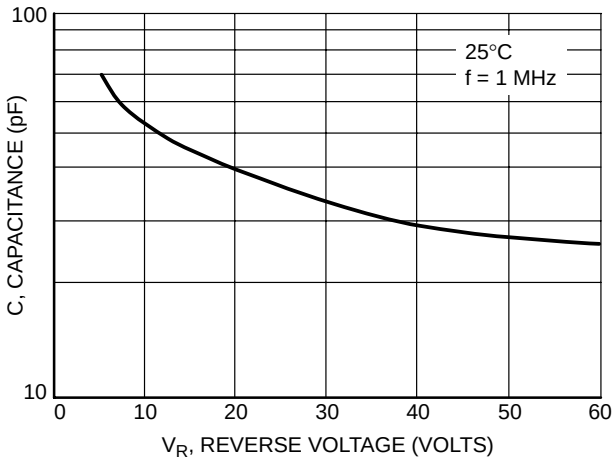


Figure 4. Typical Capacitance

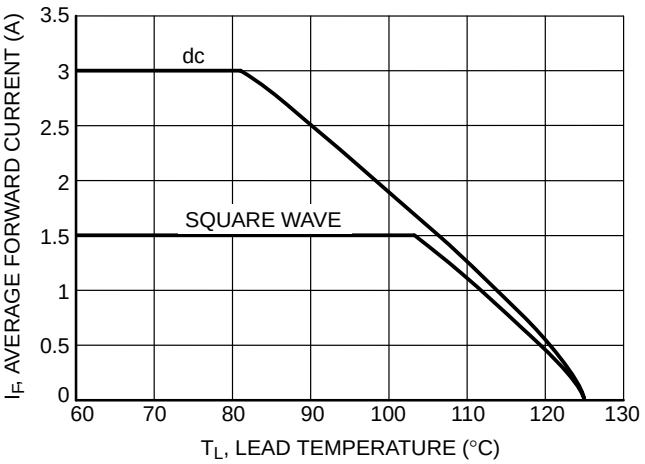


Figure 5. Current Derating – Junction to Lead

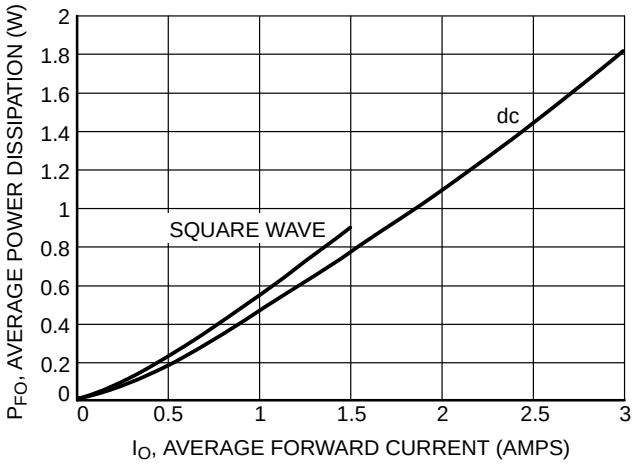


Figure 6. Forward Power Dissipation

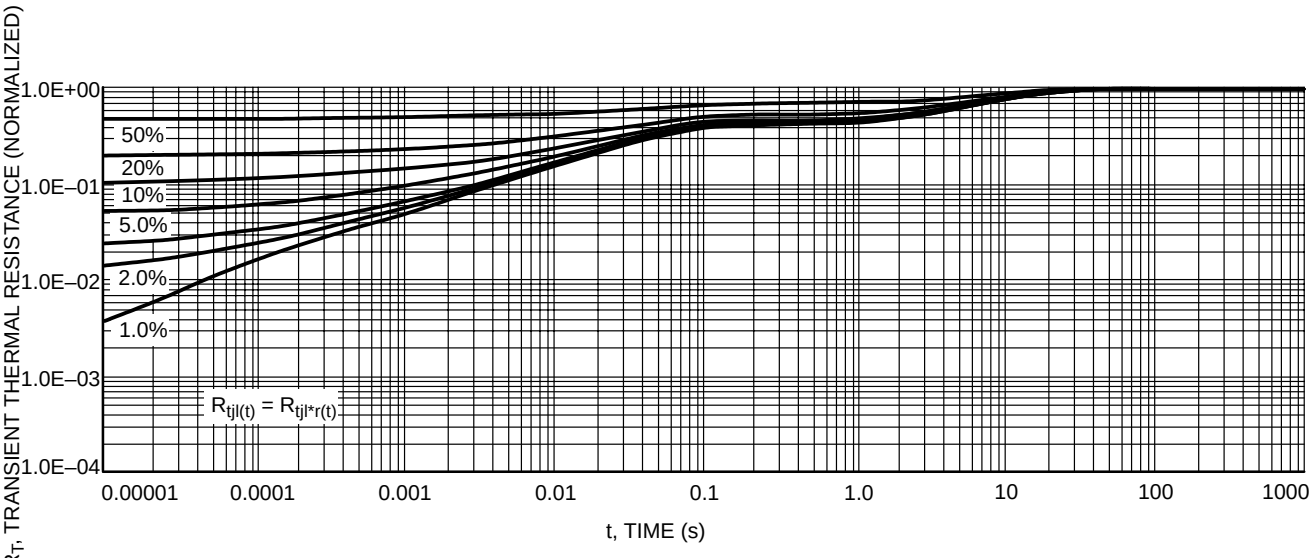


Figure 7. Thermal Response – Junction to Case

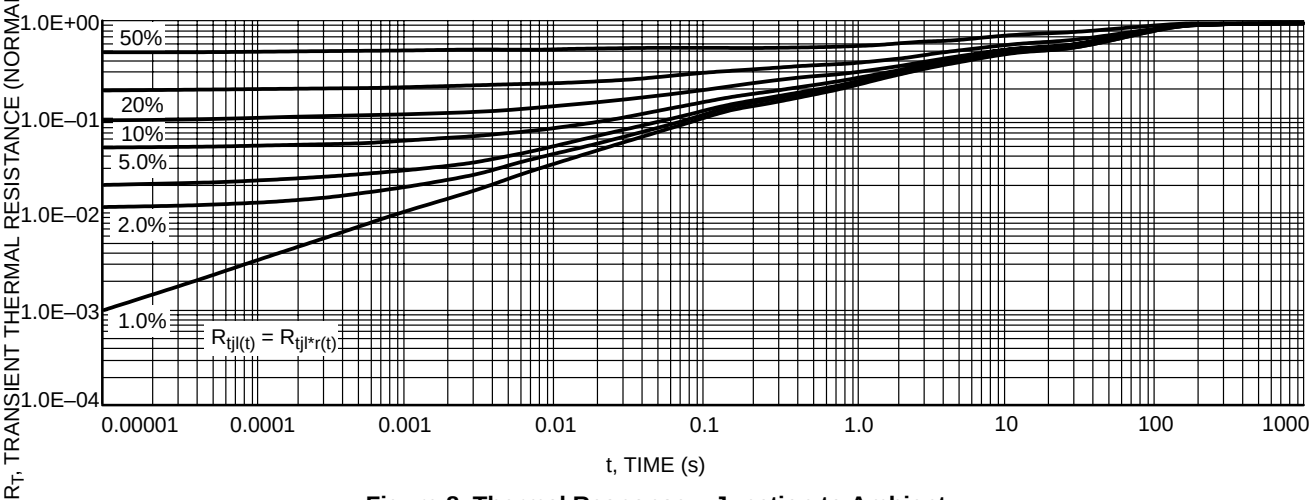
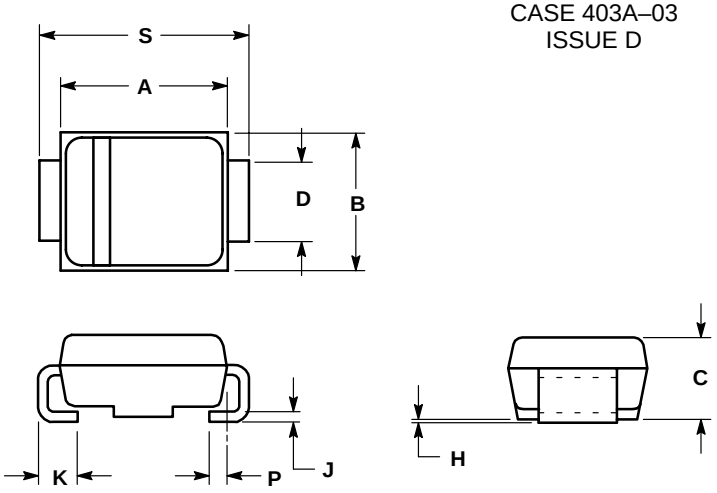


Figure 8. Thermal Response – Junction to Ambient

PACKAGE DIMENSIONS

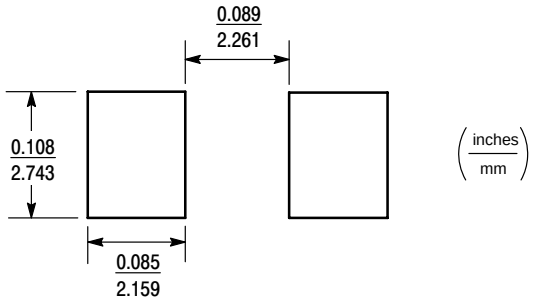
SMB
PLASTIC PACKAGE
CASE 403A–03
ISSUE D



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

	INCHES		MILLIMETERS	
DIM	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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