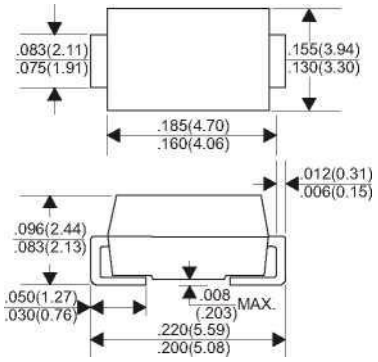
SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

Features

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- For surface mounted applications
- Metal silicon junction,majority carrier conduction
- Low power loss,high efficiency
- Built-in strain relief,ideal for automated placement
- High forward surge current capability
- High temperature soldering guaranteed: 250 °C/10 seconds at terminals

DO-214AA(SMB)

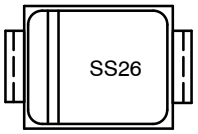


Dimensions in inches and (millimeters)

Mechanical Data

Case : JEDEC DO-214AC/SMA molded plastic body
Terminals : Solderable per MIL-STD-750,Method 2026
Polarity : Color band denotes cathode end Mounting
Position : Any
Weight : 0.003 ounce, 0.093 grams

MARKING DIAGRAM



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 +150	°C
Voltage Rate of Change (Rated V_R, T_J = 25°C)	dv/dt	10,000	V/μs

ORDERING INFORMATION

Device	Package	Shipping†
SS26	SMB (Pb−Free)	3000 / 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

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.

ELECTRICAL CHARACTERISTICS

Characteristic	Symbol	Value		Unit
		T_J = 25°C	T_J = 125°C	
Maximum Instantaneous Forward Voltage (Note 3) (i_F = 1.0 A) (i_F = 2.0 A)	v_F	0.51 0.63	0.475 0.55	V
Maximum Instantaneous Reverse Current (Note 3) (V_R = 60 V)	I_R	0.2	20	mA

3. Pulse Test: Pulse Width ≤ 250 μs, Duty Cycle ≤ 2.0%.

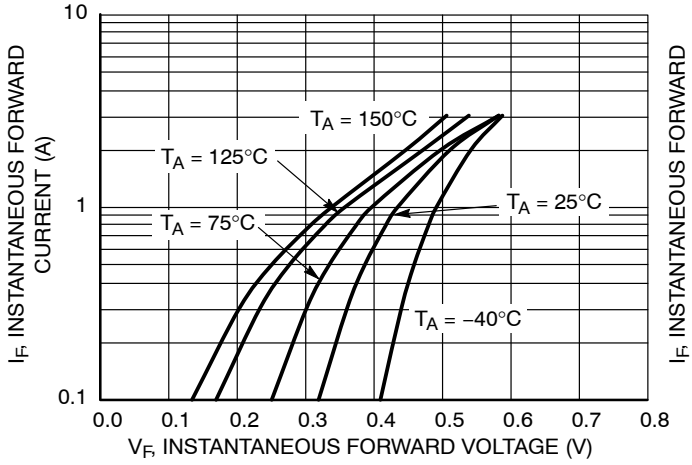


Figure 1. Typical Forward Voltage

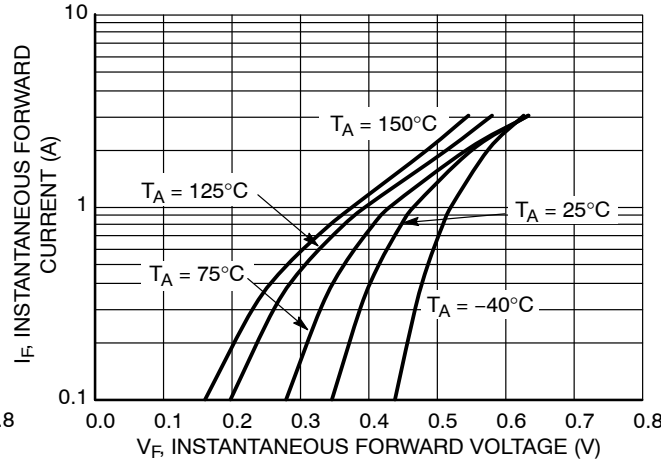


Figure 2. Maximum Forward Voltage

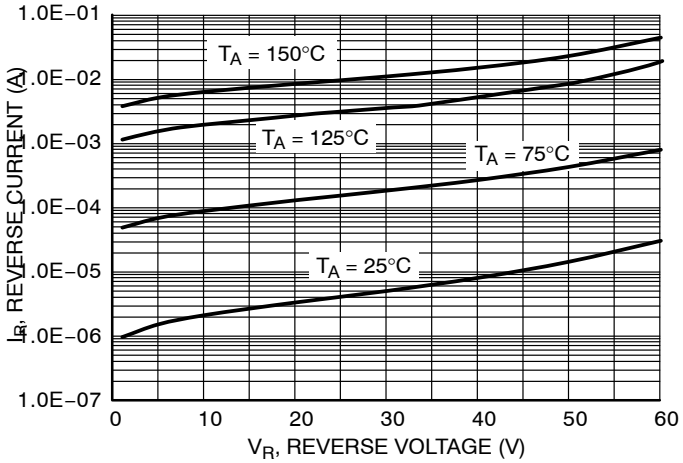


Figure 3. Typical Reverse Current

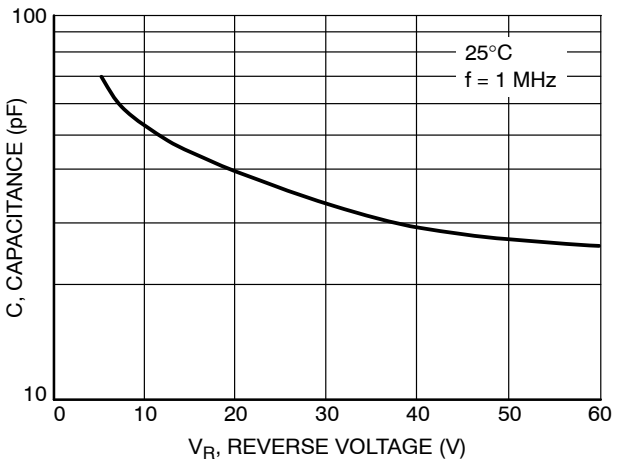


Figure 4. Typical Capacitance

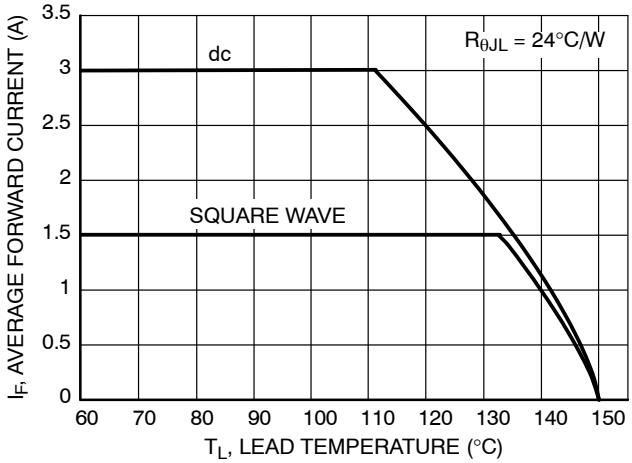


Figure 5. Current Derating – Junction to Lead

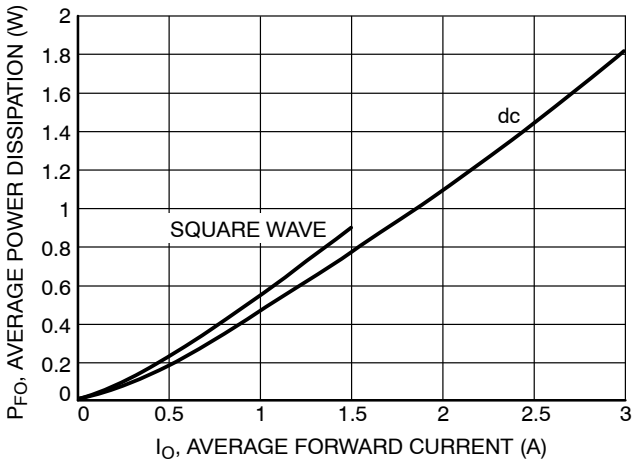


Figure 6. Forward Power Dissipation

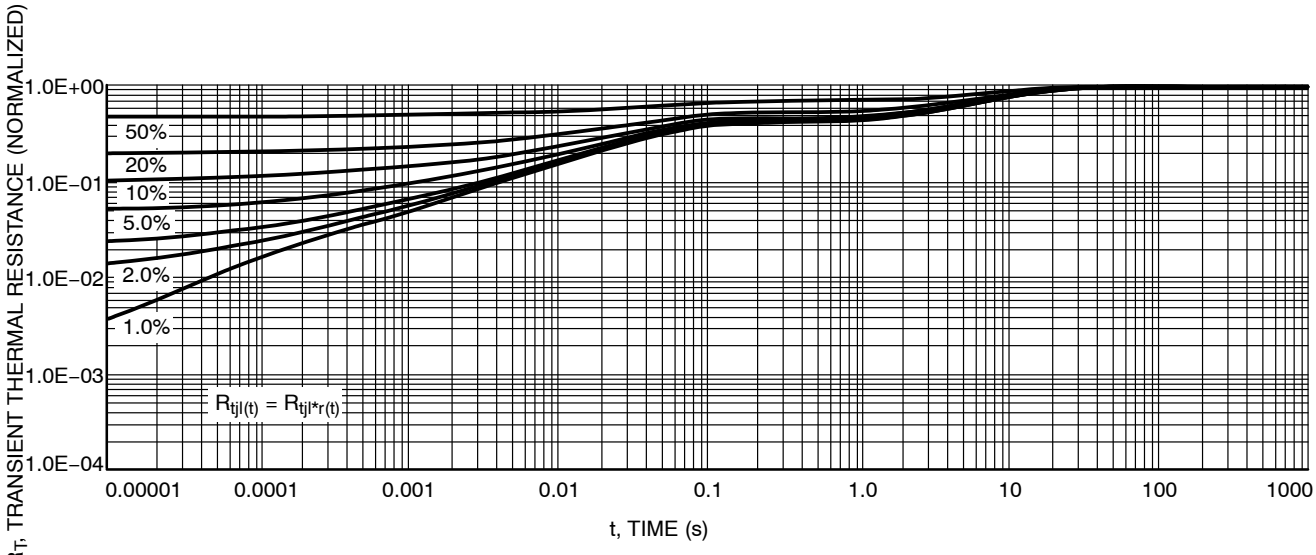


Figure 7. Thermal Response – Junction to Case

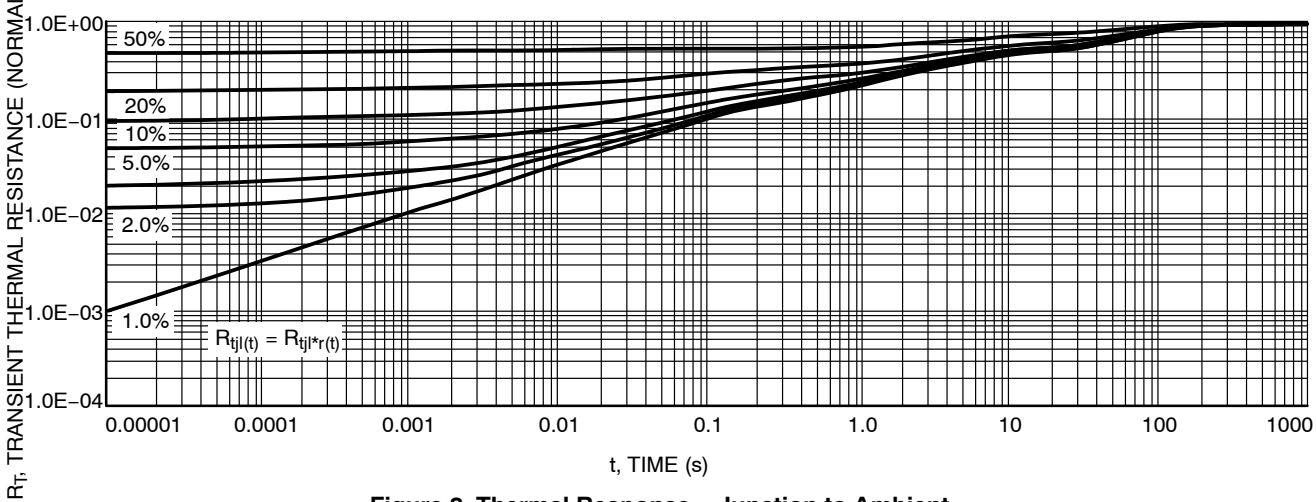


Figure 8. Thermal Response – Junction to Ambient