

Features

- The plastic package carries UL Flammability Classification 94V-0
- For surface mounted applications
- Low power loss, high efficiency
- Built-in strain relief, ideal for automated placement
- High forward surge current capability
- High temperature soldering guaranteed:260°C/10 seconds at terminals



Mechanical Characteristics

- Case: SMB(DO-214AA) package molded plastic body
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Mounting Position: Any

Absolute Maximum Ratings and Electrical Parameters (TA=25°C unless otherwise specified)

PARAMETER		SYMBOL	SS52B	SS53B	SS54B	SS55B	SS56B	SS58B	SS510B	SS515B	SS520B	UNIT
Maximum repetitive peak reverse voltage		V _{RRM}	20	30	40	50	60	80	100	150	200	V
Maximum RMS voltage		V _{RMS}	14	21	28	35	42	56	70	105	140	V
Maximum DC blocking voltage		V _{DC}	20	30	40	50	60	80	100	150	200	V
Maximum average forward rectified current		I _{AV}	5									A
Peak forward surge current ^(NOTE1)		I _{FSM}	100									A
Maximum instantaneous forward voltage at 5A		V _F	0.55			0.7		0.85		0.9		V
Maximum DC reverse current at rated DC blocking voltage	T _A =25 °C	I _R	500					100		50		uA
	T _A =100 °C	I _{RT}	10000					5000		2000		uA
Typical junction capacitance ^(NOTE 2)		C _J	550			450						pF
Typical Thermal Resistance Junction to Ambient ^(NOTE3)		R _{θJA}	65									°C/W
Typical Thermal Resistance Junction to Lead ^(NOTE3)		R _{θJL}	20									°C/W
Operating Temperature Range		T _J	-55 to 125					-55 to 150				°C
Storage Temperature Range		T _{STG}	-55 to 150									°C

Note1: 8.3ms single half sine-wave superimposed on rated load

Note2: Measured at 1MHz and applied reverse voltage of 4.0V DC.

Note3: PCB. mounted with 7×7mm copper pad areas

Rating And Characteristic Curves (TA=25°C unless otherwise noted)

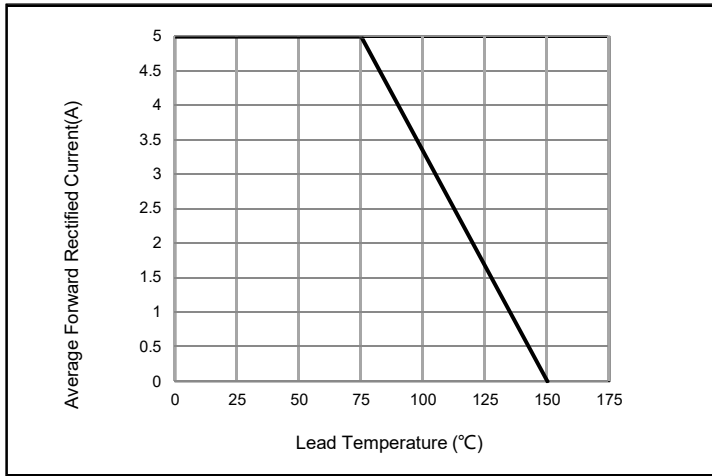


Fig. 1 - Forward Current Derating Curve

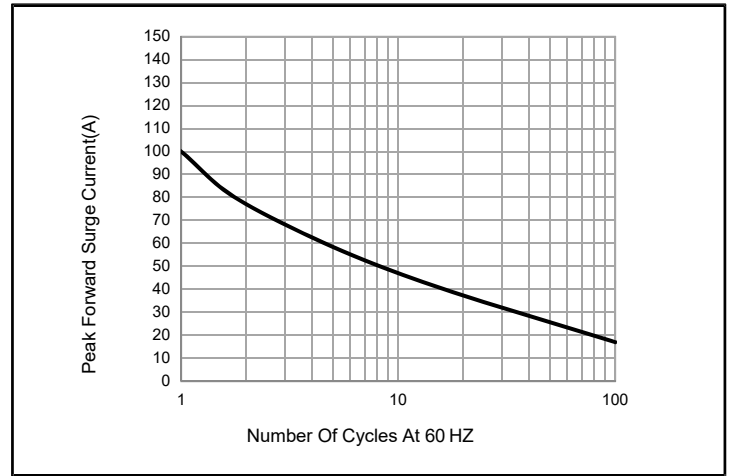


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

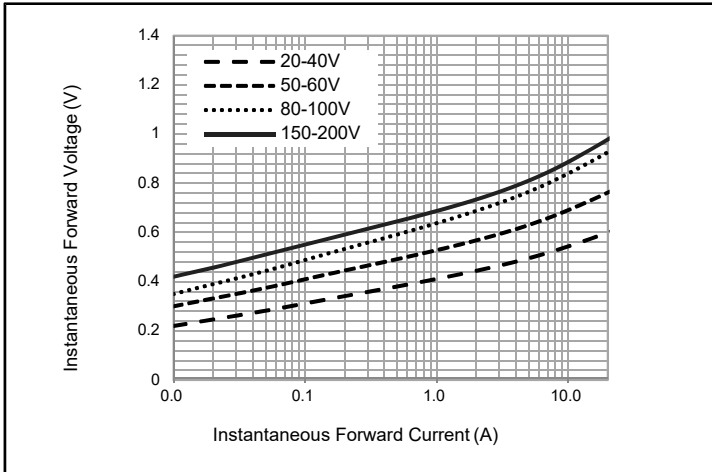


Fig. 3 - Typical Instantaneous Forward Characteristics

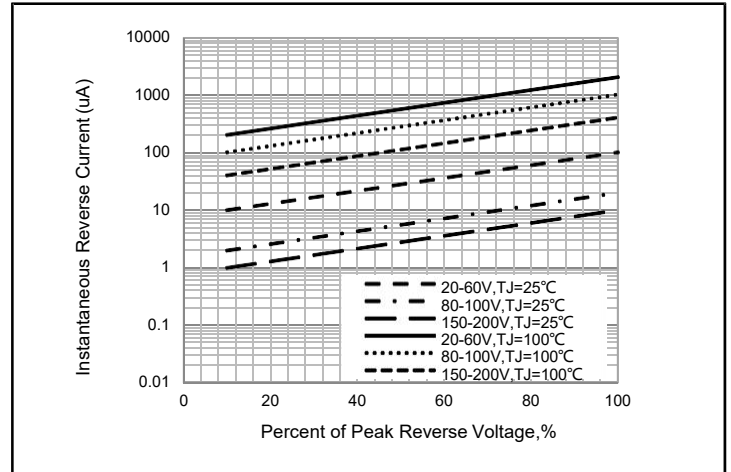


Fig. 4 - Typical Reverse Characteristics

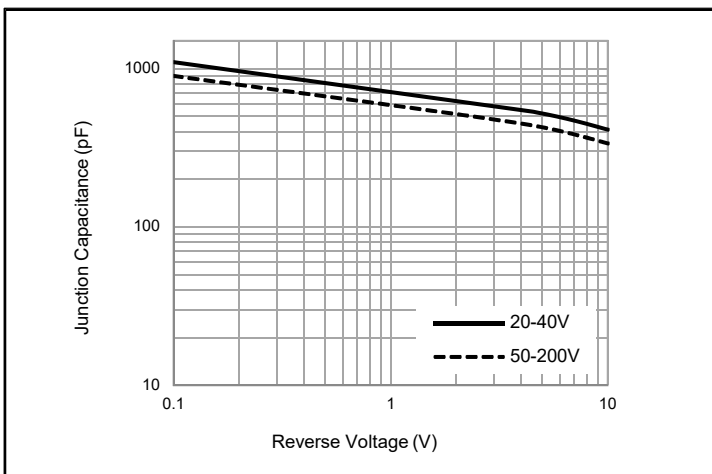


Fig. 5 - Typical Junction Capacitance

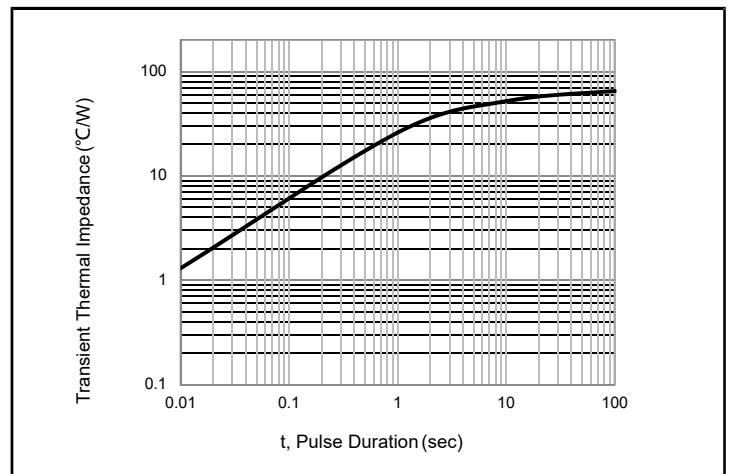
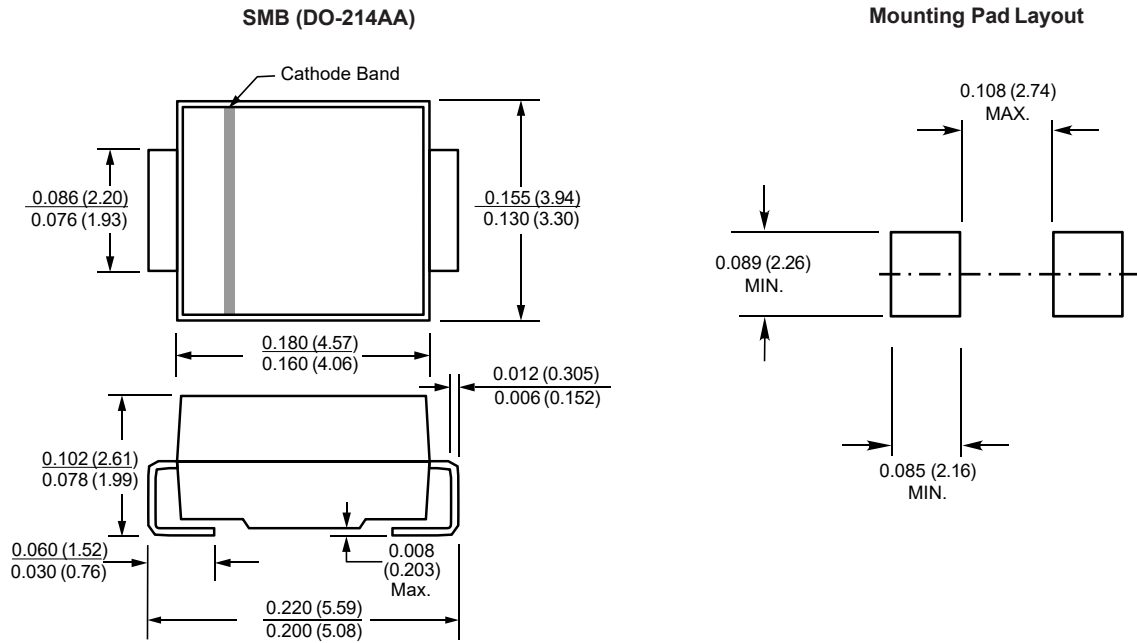


Fig. 6 - Typical Transient Thermal Impedance

Package Outline Dimensions in inches (millimeters)



Part Marking System



Cathode Band
(for uni-directional products only)

PDW:Company Logo
XX:Marking Code

Summary of Packing Options

Package	Packing Description	Packing Quantity
SMB	Tape/Reel, 13" reel	3000