PDW

S3xB SERIES

General Purpose Diode

Features

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

Mechanical Characteristics

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

Electrical Parameters

PARAMETER		SYMBOL	S3AB	S3BB	S3DB	S3GB	S3JB	S3KB	S3MB	UNIT
Maximum repetitive peak reverse voltage		V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS voltage		V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC blocking voltage		V_{DC}	50	100	200	400	600	800	1000	V
Maximum average forward rectified current		I_{AV}	3							A
Peak forward surge current (NOTE1)		I_{FSM}	100							A
Maximum instantaneous forward voltage at 3A		V_F	1.1							V
Maximum DC reverse current at rated DC blocking voltage	T_A=25 ℃	I_R	5							uA
	T_A=100 ℃	I_{RT}	50							uA
Typical junction capacitance (NOTE 2)		C_J	45							pF
Typical Thermal Resistance Junction to Ambient (NOTE3)		$R_{\theta JA}$	65							℃/W
Typical Thermal Resistance Junction to Lead (NOTE3)		$R_{\theta JL}$	20							℃/W
Operating Temperature Range		T_J	-55 to 150							℃
Storage Temperature Range		T_{STG}	-55 to 150							℃

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

© 2022 PDW, Inc.
Specifications are subject to change without notice.

Revised:2.1,Oct-22

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

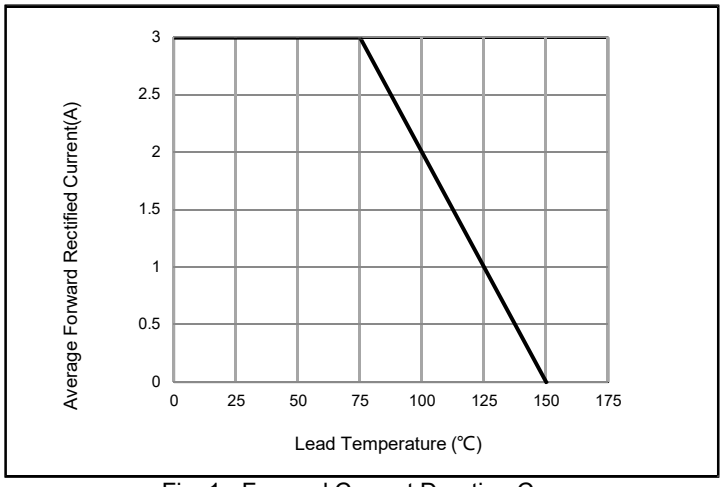


Fig. 1 - Forward Current Derating Curve

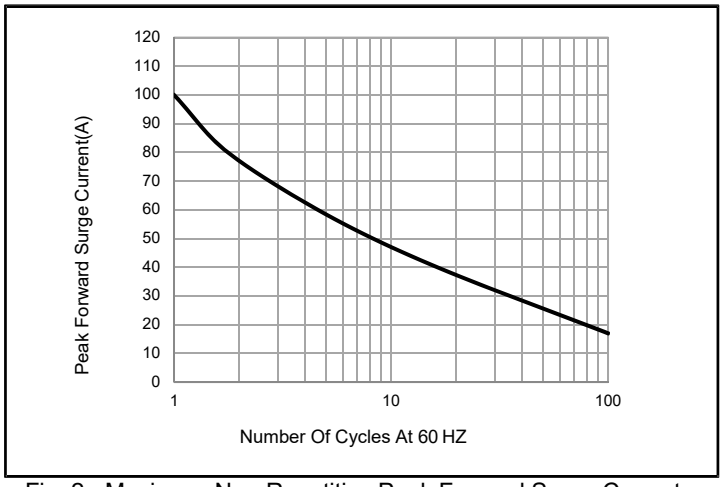


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

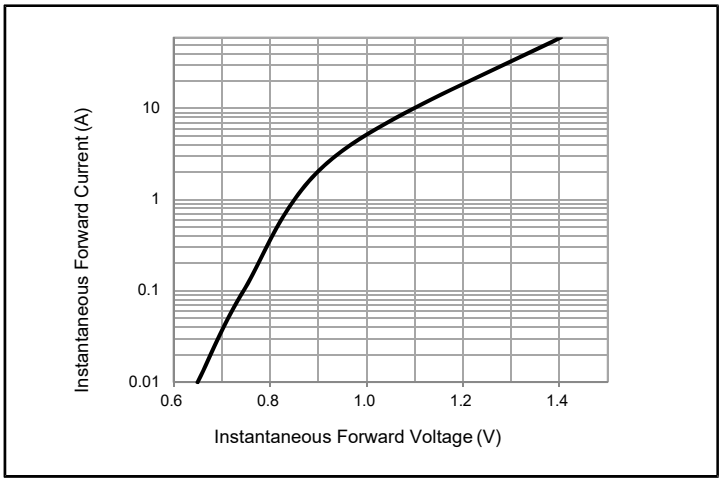


Fig. 3 - Typical Instantaneous Forward Characteristics

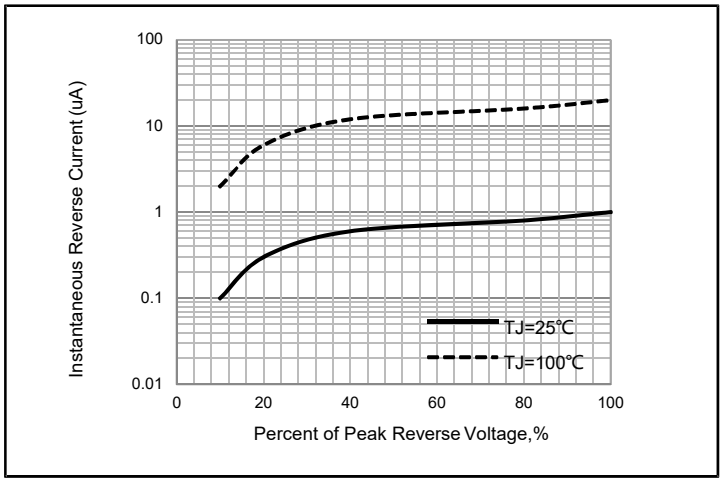


Fig. 4 - Typical Reverse Characteristics

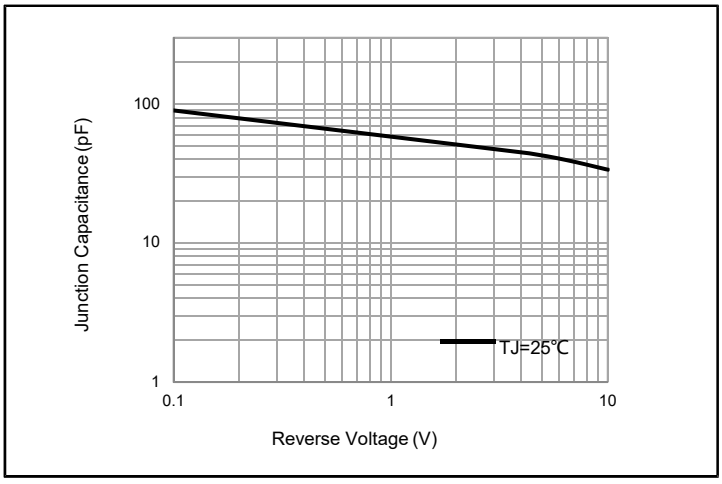


Fig. 5 - Typical Junction Capacitance

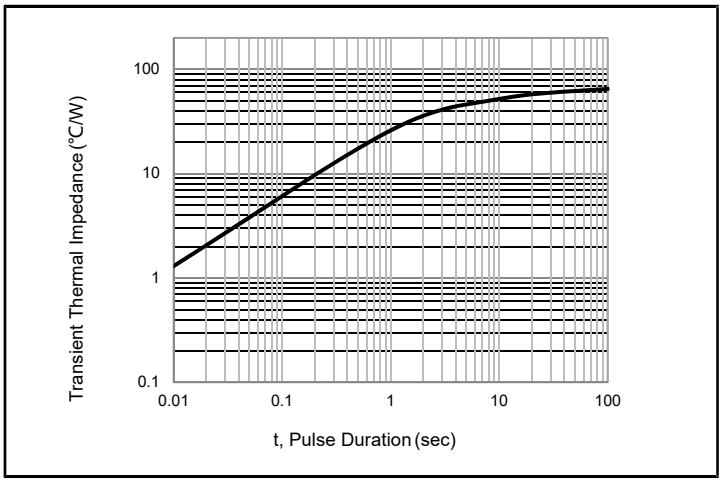


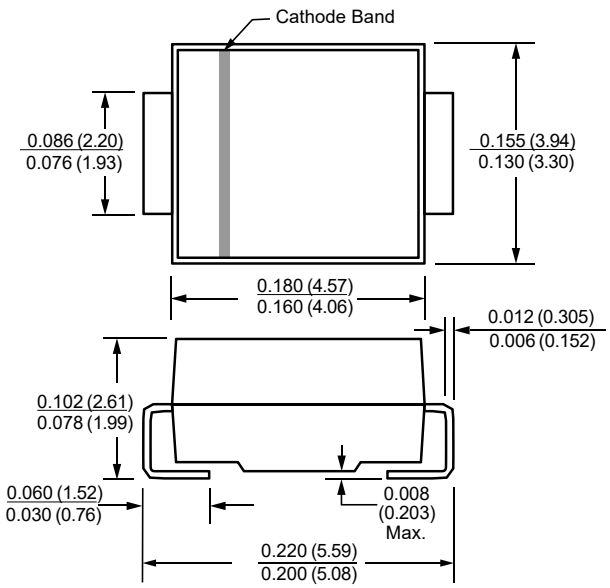
Fig. 6 - Typical Transient Thermal Impedance

© 2022 PDW, Inc.
Specifications are subject to change without notice.
Revised:2.1,Oct-22

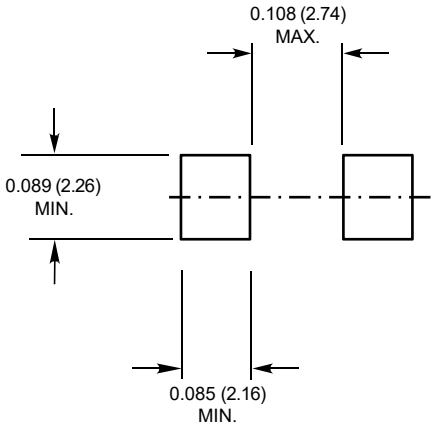
Package Outline Dimensions in inches (millimeters)

CASE:0201

SMB (DO-214AA)



Mounting Pad Layout



Part Marking System



PDW:Company Logo

XX:Marking Code

Summary of Packing Options

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

© 2022 PDW, Inc.
Specifications are subject to change without notice.