

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°C/10 seconds at terminals

Mechanical Characteristics

- Case: SMAF 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	US5AB	US5BB	US5DB	US5GB	US5JB	US5KB	US5MB	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}	5							A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load		I _{FSM}	150							A
Maximum instantaneous forward voltage at 5A		V _F	1			1.4	1.7			V
Maximum DC reverse current at rated DC blocking voltage	T _A =25 °C	I _R	5							uA
	T _A =100 °C	I _{RT}	50							uA
Maximum reverse recovery time (NOTE 1)		t _{rr}	50				75			ns
Typical junction capacitance (NOTE 2)		C _J	75							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 150							°C
Storage Temperature Range		T _{STG}	-55 to 150							°C

Note1: Reverse recovery condition $I_F=0.5A, I_R=1.0A, I_{rr}=0.25A$

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

Note3: PCB. mounted with 7x7mm copper pad areas

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

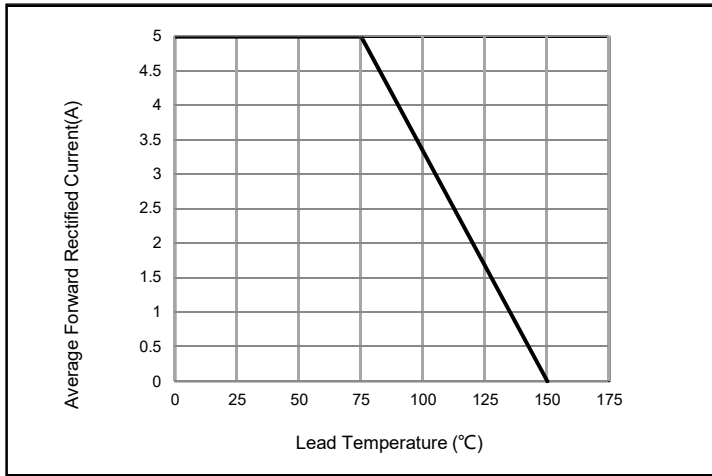


Fig. 1 - Forward Current Derating Curve

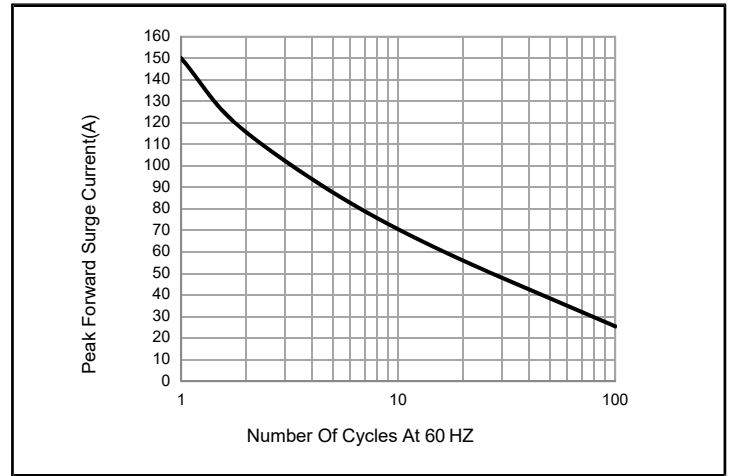


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

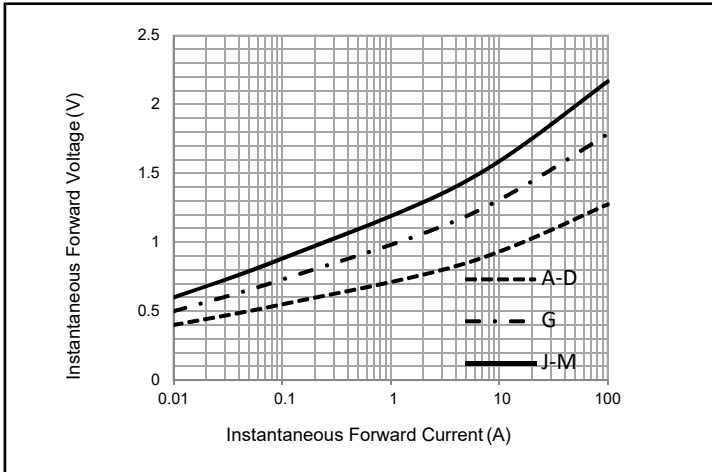


Fig. 3 - Typical Instantaneous Forward Characteristics

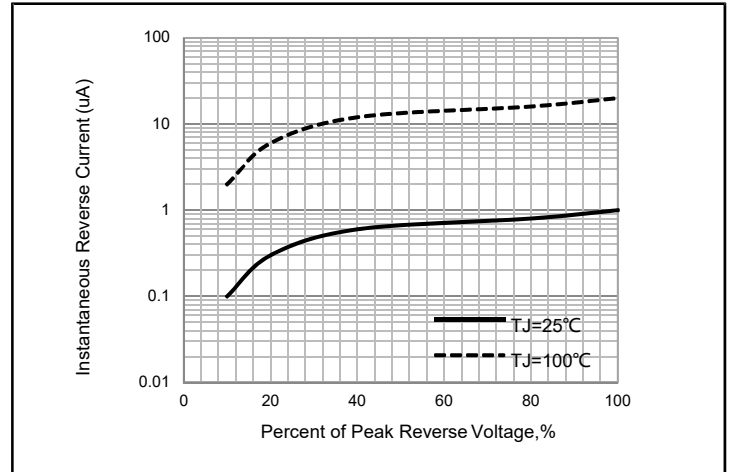


Fig. 4 - Typical Reverse Characteristics

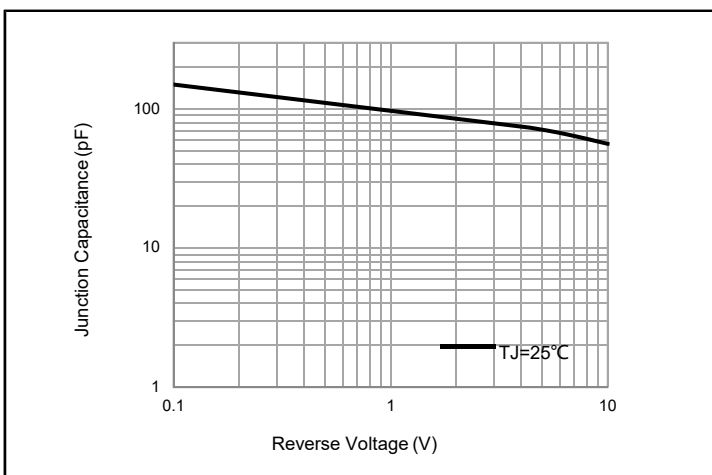


Fig. 5 - Typical Junction Capacitance

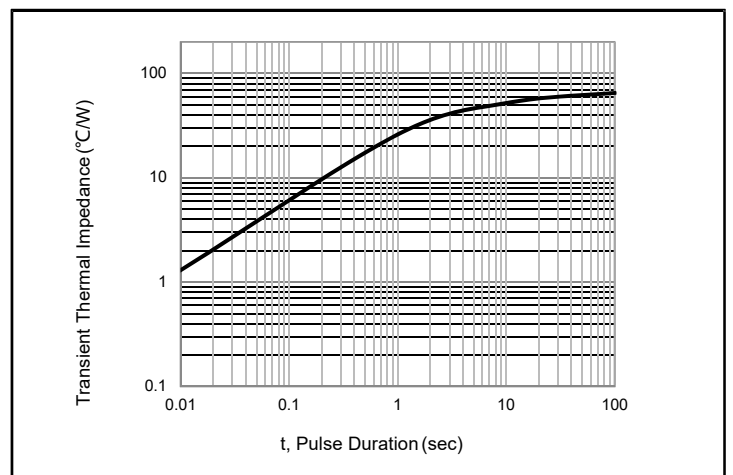


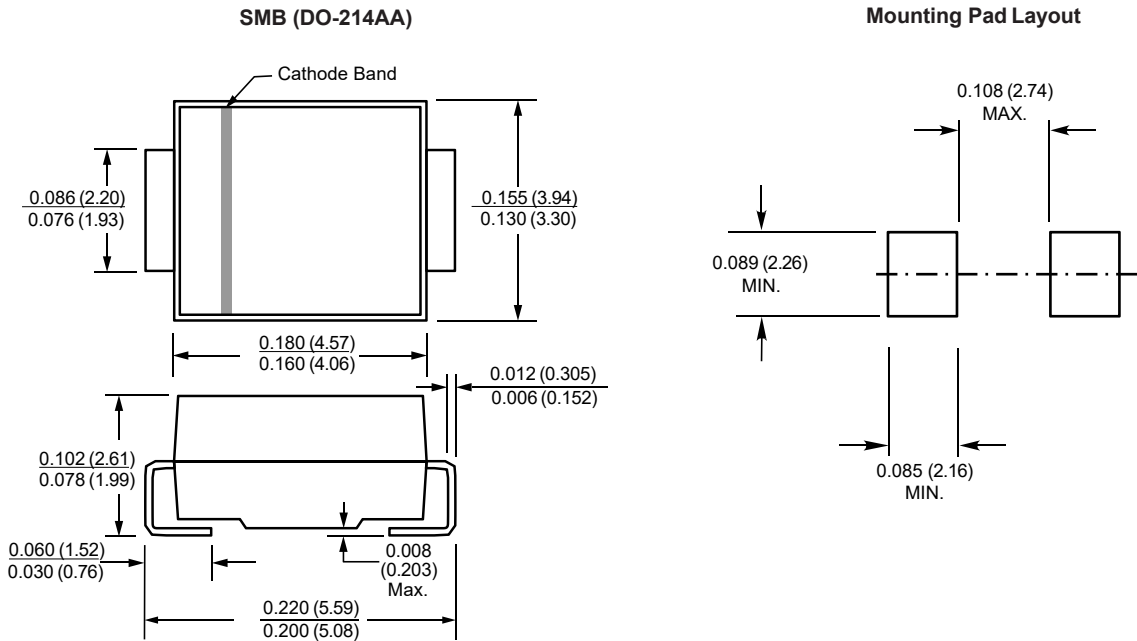
Fig. 6 - Typical Transient Thermal Impedance



US5xB SERIES

High Efficiency Rectifier

Package Outline Dimensions in inches (millimeters)



Part Marking System



PDW:Company Logo
XX:Marking Code

Summary of Packing Options

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