

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: SMC(DO-214AB) 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	RS5AC	RS5BC	RS5DC	RS5GC	RS5JC	RS5KC	RS5MC	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}	120							A
Maximum instantaneous forward voltage at 5A		V_F	1.3							V
Maximum DC reverse current at rated DC blocking voltage	$T_A=25\text{ }^{\circ}\text{C}$	I_R	5							uA
	$T_A=100\text{ }^{\circ}\text{C}$	I_{RT}	50							uA
Maximum reverse recovery time (NOTE 1)		t_{rr}	150				250	500		ns
Typical junction capacitance (NOTE 2)		C_J	75							pF
Typical Thermal Resistance Junction to Ambient (NOTE3)		$R_{\theta JA}$	55							$^{\circ}\text{C/W}$
Typical Thermal Resistance Junction to Lead (NOTE3)		$R_{\theta JL}$	15							$^{\circ}\text{C/W}$
Operating Temperature Range		T_J	-55 to 150							$^{\circ}\text{C}$
Storage Temperature Range		T_{STG}	-55 to 150							$^{\circ}\text{C}$

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 16×16mm copper pad areas

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

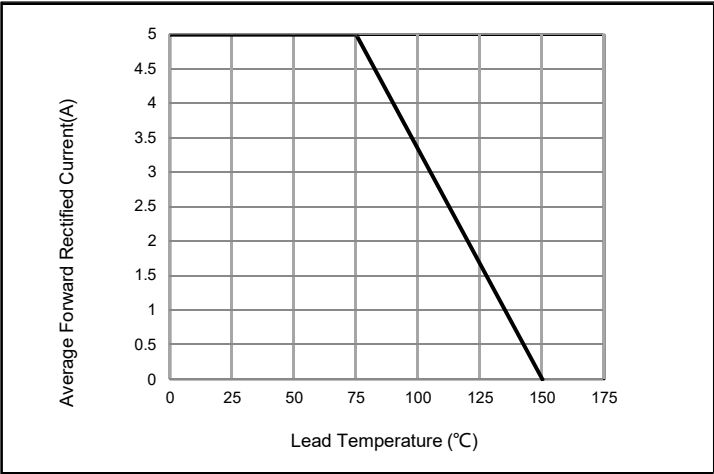


Fig. 1 - Forward Current Derating Curve

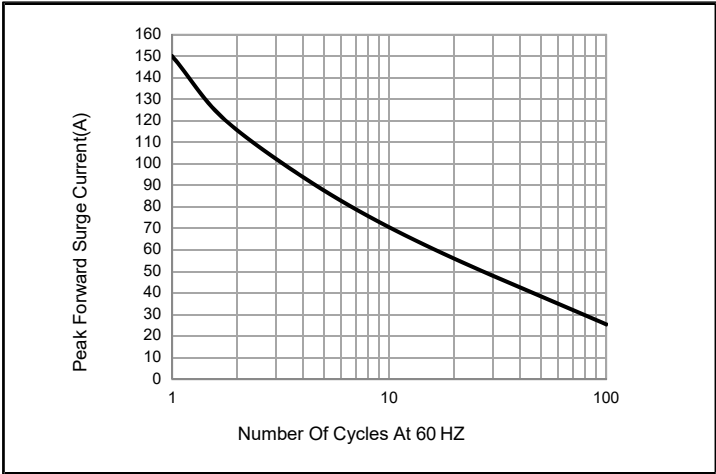


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

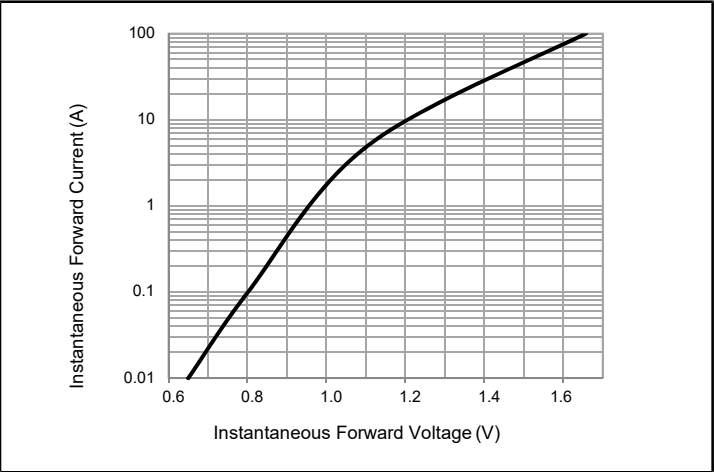


Fig. 3 - Typical Instantaneous Forward Characteristics

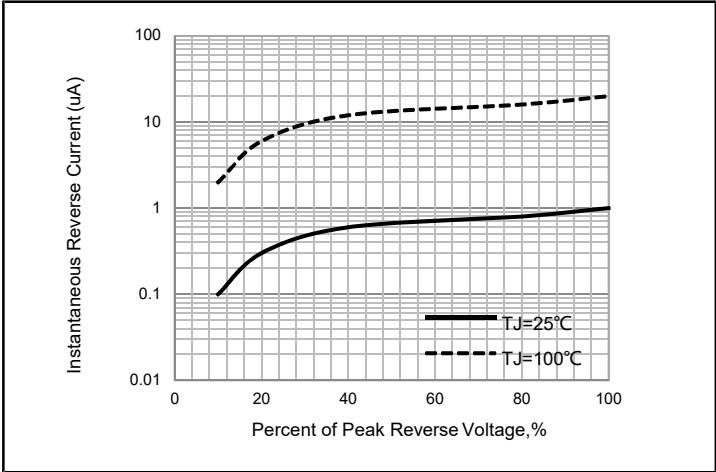


Fig. 4 - Typical Reverse Characteristics

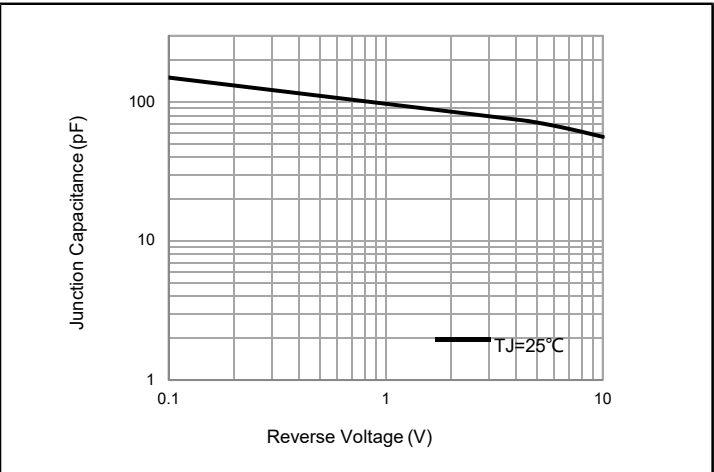


Fig. 5 - Typical Junction Capacitance

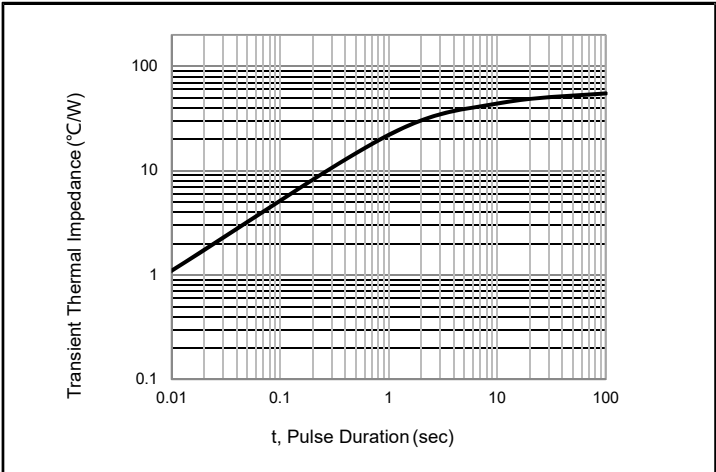
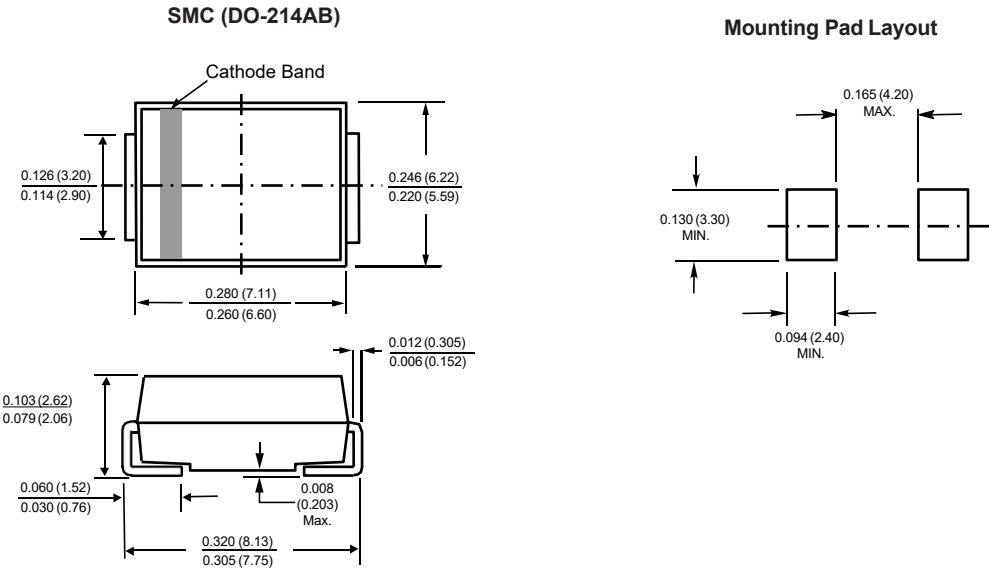
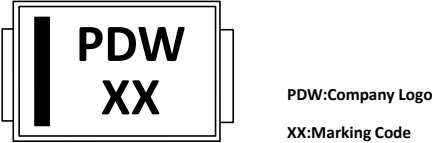


Fig. 6 - Typical Transient Thermal Impedance

Package Outline Dimensions in inches (millimeters)



Part Marking System



Summary of Packing Options

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