

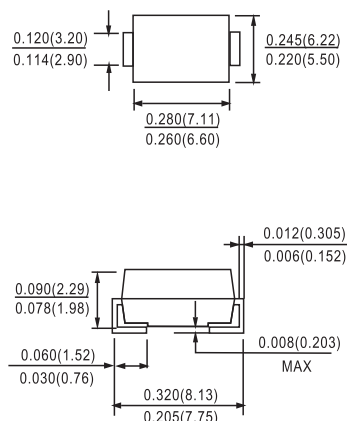
FEATURES

- Glass Passivated Die Construction
- Ideally Suited for Automatic Assembly
- Low Forward Voltage Drop
- Surge Overload Rating to 100A Peak
- Low Power Loss
- Built-in Strain Relief
- Plastic Case Material has UL Flammability Classification Rating 94V-O

Mechanical Data

- Case: SMC/DO-214AB, Molded Plastic
- Terminals: Solder Plated, Solderable per MIL-STD-750, Method 2026
- Polarity: Cathode Band or Cathode Notch
- Marking: Type Number
- Weight: 0.21 grams (approx.)
- **Lead Free: For RoHS / Lead Free Version, Add "-LF" Suffix to Part Number, See Page 4**

DO-214AB(SMC)



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified

		SYMBOLS	S5A	S5B	S5D	S5G	S5J	S53K	S5M	UNIT
Maximum Repetitive Peak Reverse Voltage		V _{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage		V _{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage		V _{DC}	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Current at T _L =100 (NOTE 3)		I _(AV)	5.0							Amps
Peak Forward Surge Current 8.3ms single half sine wave superimposed on rated load (JEDEC method) T _L =100		I _{FSM}	100							Amps
Maximum Instantaneous Forward Voltage at 5.0A		V _F	1.15							Volts
Maximum DC Reverse Current at rated DC Blocking Voltage	T _A = 25	I _R	10.0							A
	T _A = 125		250							
Typical Reverse Recovery Time (NOTE 1)		t _{rr}	2.5							s
Typical junction capacitance (NOTE 2)		C _J	60							pF
Typical Thermal Resistance (NOTE 3)		R _{θJL}	47							/W
		R _{θJA}	13							
Operating Junction and Storage Temperature Range		T _J , T _{STG}	-55 to +150							

Notes:

1. Reverse recovery test conditions: $I_F = 0.5A$, $I_R = 1.0A$, $I_{rr} = 0.25A$
2. Measured at 1.0MHz and applied reverse voltage of 4.0 Volts
3. Thermal resistance from Junction to ambient and from junction to lead mounted on P.C.B. with $0.3 \times 0.3''$ ($8.0 \times 8.0\text{mm}$) copper pad areas.

FIG.1-FORWARD CURRENT DERATING CURVE

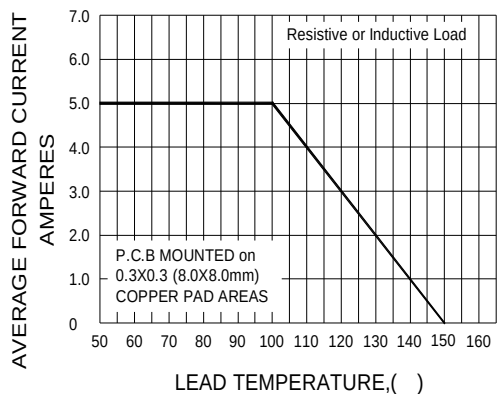


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

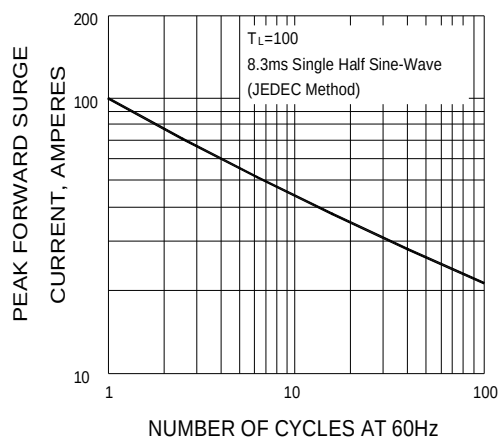


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

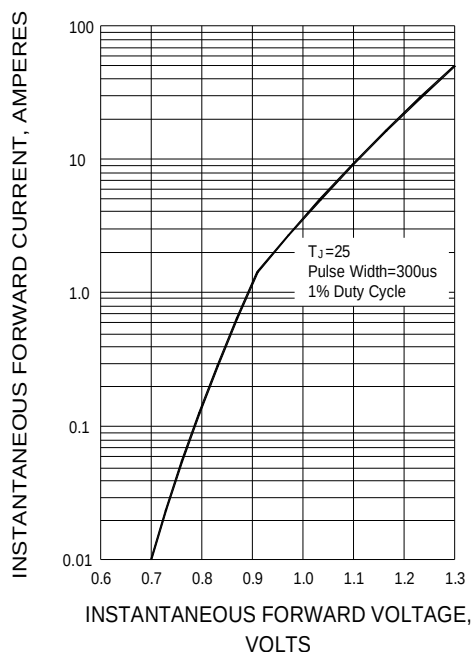


FIG.4-TYPICAL REVERSE CHARACTERISTICS

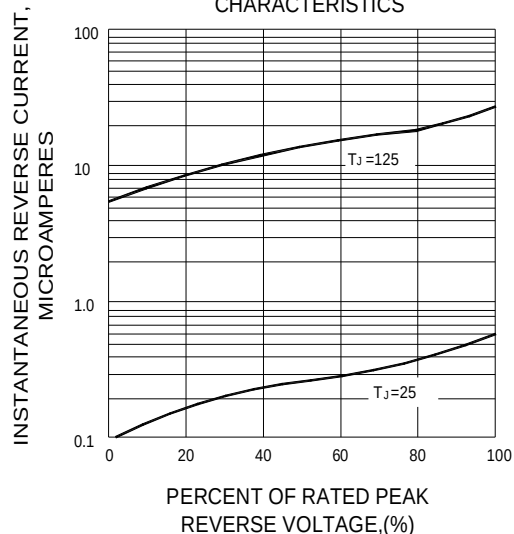


FIG.5-TYPICAL JUNCTION CAPACITANCE

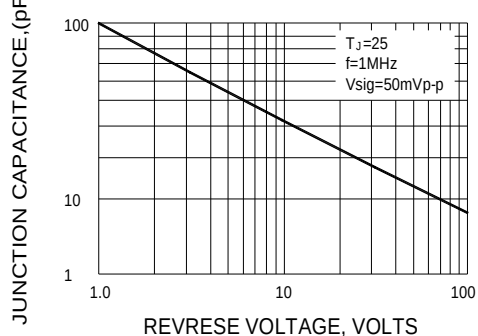


FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE

