

SURFACE MOUNT RECTIFIER

REVERSE VOLTAGE: 50 — 1000 V
CURRENT: 5.0 A

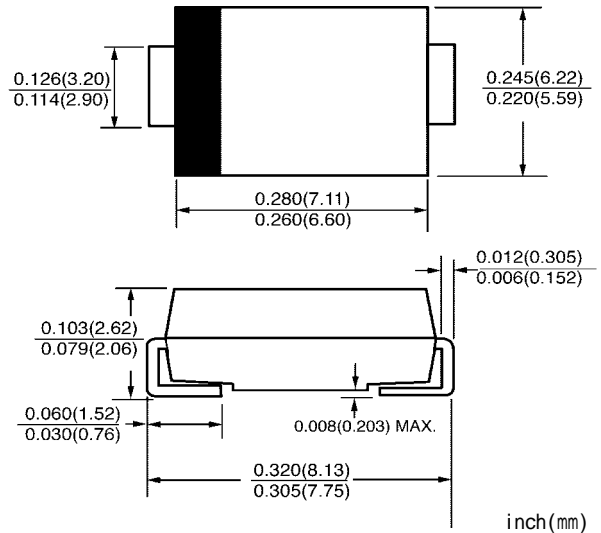
FEATURES

- ◇ Plastic package has underwriters laborator flammability classification 94V-0
- ◇ For surface mounted applications
- ◇ Low profile package
- ◇ Built-in strain relief, ideal for automated placement
- ◇ Glass passivated chip junction
- ◇ High temperature soldering:
250°C/10 seconds at terminals

MECHANICAL DATA

- ◇ Case: JEDEC DO-214AB, molded plastic over passivated chip
- ◇ Terminals: Solder plated, solderable per ML-STD-750, Method 2026
- ◇ Polarity: color band denotes cathode end
- ◇ Weight: 0.007 ounces, 0.21 gram

DO - 214AB(SMC)



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified

		RS5AC	RS5BC	RS5DC	RS5GC	RS5JC	RS5KC	RS5MC	UNITS
Maximum recurrent 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 at $T_L=90^\circ\text{C}$	$I_{F(AV)}$	5.0							A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load	I_{FSM}	150							A
Maximum instantaneous forward voltage at 5.0A	V_F	1.3							V
Maximum DC reverse current @ $T_A=25^\circ\text{C}$ at rated DC blocking voltage @ $T_A=125^\circ\text{C}$	I_R	5.0 200							μA
Maximum reverse recovery time (NOTE 1)	t_{rr}	150			250		500		ns
Typical junction capacitance (NOTE 2)	C_J	32							pF
Typical thermal resistance (NOTE 3)	$R_{\theta JA}$	22							$^\circ\text{C/W}$
Operating junction and storage temperature range	$T_J T_{STG}$	-55-----+150							$^\circ\text{C}$

NOTE: 1.Reverse recovery time test conditions: $I_F=0.5A, I_R=1.0A, I_{rr}=0.25A$

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2. Measured at 1.0MHz and applied reverse voltage of 4.0 Volts

3. Thermal resistance from junction to ambient and junction to lead P.C.B.mounted on 0.2"X0.2"(5.0X5.0mm²) copper pad areas

FIG.1 – FORWARD DERATING CURVE

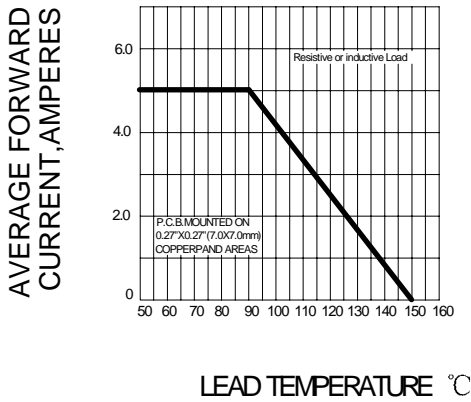


FIG.2 PEAK FORWARD SURGE CURRENT

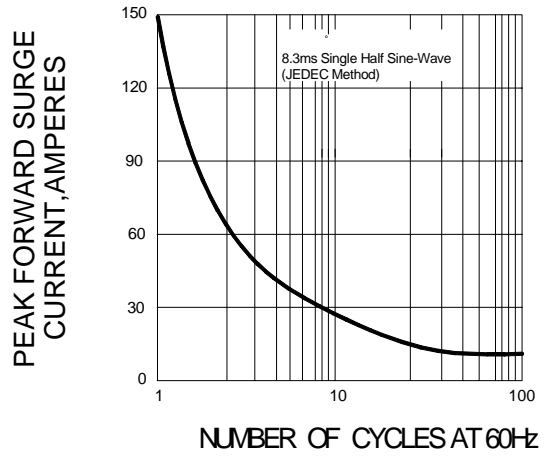


FIG.3 – TYPICAL FORWARD CHARACTERISTICS

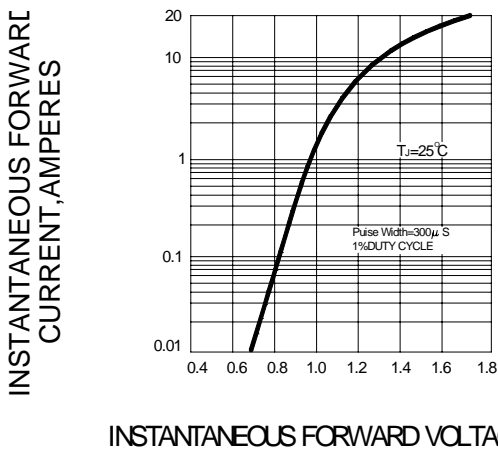


FIG.4 – TYPICAL REVERSE CHARACTERISTICS

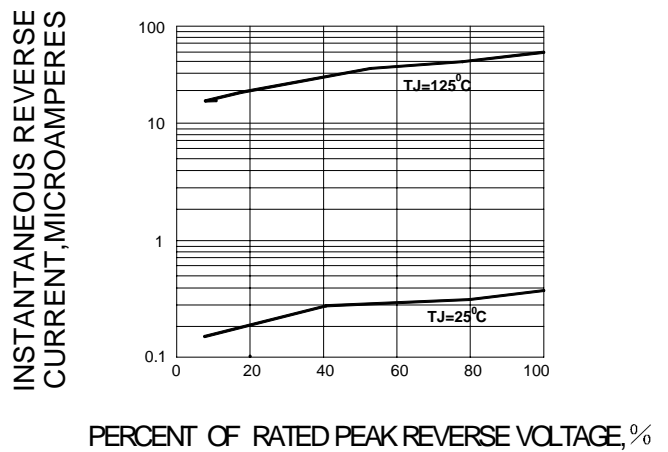


FIG.5-TYPICAL JUNCTION CAPACITANCE

