

PLASTIC SILICON RECTIFIER

REVERSE VOLTAGE: 50 --- 1000 V
CURRENT: 3.0 A

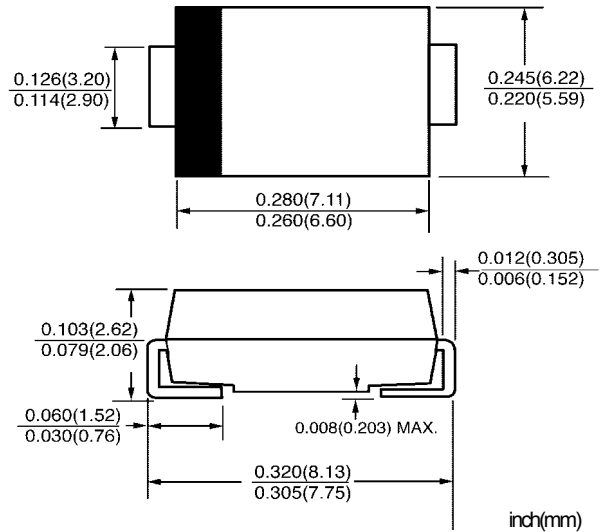
FEATURES

- ◇ Plastic package has underwriters laboratory 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 MIL-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

		S3A	S3B	S3D	S3G	S3J	S3K	S3M	UNITS
Maximum recurrent peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V_{RWS}	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 @ $T_L = 90^\circ\text{C}$	$I_{F(AV)}$	3.0							A
Peak forward surge current @ $T_L = 110^\circ\text{C}$ 8.3ms single half-sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	100.0							A
Maximum Instantaneous forward voltage at 3.0 A	V_F	1.15							v
Maximum DC reverse current @ $T_A = 25^\circ\text{C}$ at rated DC blocking voltage @ $T_A = 125^\circ\text{C}$	I_R	1.0 125.0							μA
Typical junction capacitance (NOTE 2)	C_J	30.0							pF
Typical thermal resistance (NOTE 3)	$R_{\theta JA}$ $R_{\theta JL}$	53.0 16.0							$^\circ\text{C/W}$
Operating junction and storage temperature range	$T_J T_{STG}$	-55-----+150							$^\circ\text{C}$

NOTE: 1. Measured at 1.0MHz and applied reverse voltage of 4.0 Volts

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2. Thermal resistance from junction to ambient and junction to lead P.C.B. mounted on 0.27"X0.27"(7.0X7.0mm²) copper pad areas

FIG.1 – FORWARD DERATING CURVE

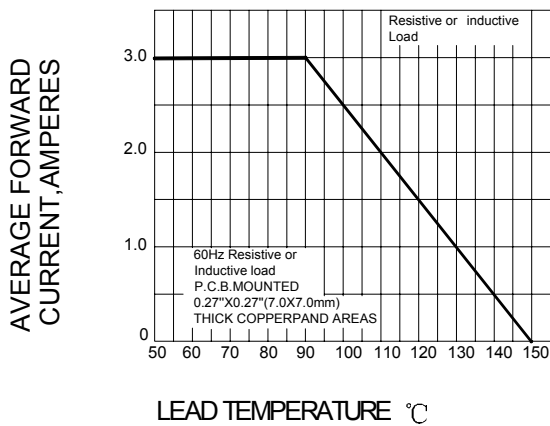


FIG.2 PEAK FORWARD SURGE CURRENT

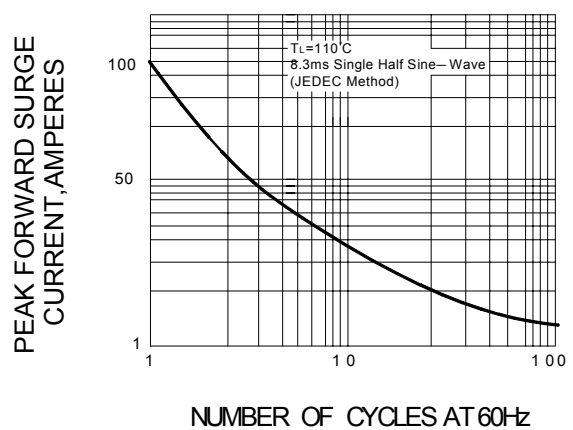


FIG.3 – TYPICAL FORWARD CHARACTERISTICS

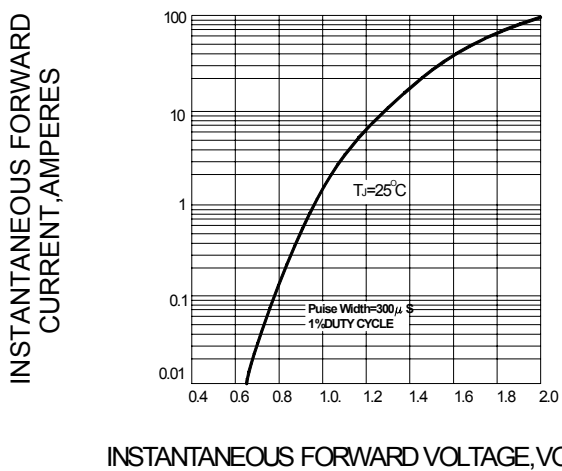


FIG.4 – TYPICAL REVERSE CHARACTERISTICS

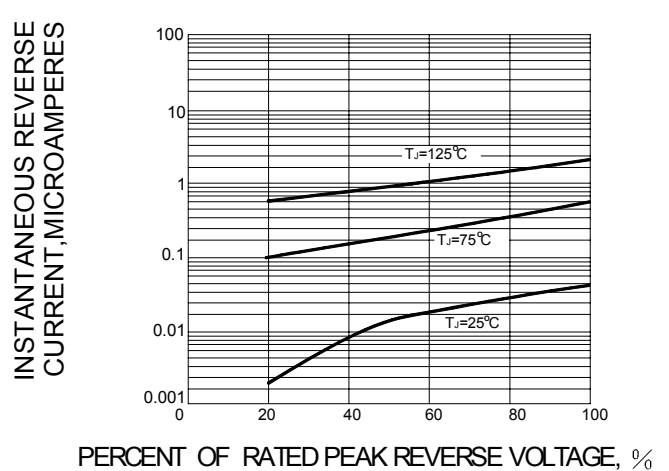


FIG.5-TYPICAL JUNCTION CAPACITANCE

