I. General Purpose Rectifier

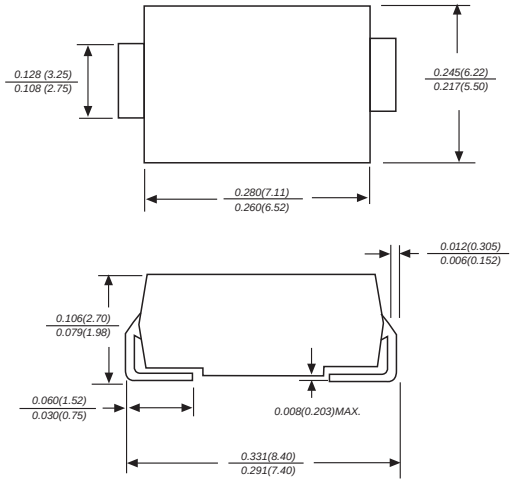
8.0A Surface Mount Silicon Rectifier
S8A~S8M (Package: SMC (DO-214AB))

FEATURES

- The plastic package carries Underwriters Laboratory 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 : 250℃/10 seconds at terminals

MECHANICAL DATA

- Case : JEDEC DO-214AB molded plastic body
- Terminals : Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity : Color band denotes cathode end
- Mounting Position : Any
- Weight : 0.220 grams



Case: SMC
Dimensions in inches and (millimetres)

Ratings & Electrical Characteristics

Ratings at 25℃ ambient temperature unless otherwise specified.
Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derate by 20%.

Characteristic	Symbol	S8A	S8B	S8D	S8G	S8J	S8K	S8M	Units
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 = 65℃	Io	8.0							Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	400.0							Amps
Maximum instantaneous forward voltage at 8.0A	V_F	1.0							Volts
Maximum DC reverse current Ta = 25℃ at rated DC blocking voltage Ta = 100℃	I_R	5.0 100.0							μA μA
Typical junction capacitance (Note 1)	Cj	130.0							PF
Typical thermal resistance (Note 2)	Rth-JA	10.0							℃/W
Operating junction and storage temperature range	Tj,Tstg	-65 to + 150							℃

Notes:
1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
2. P.C.B. mounted with 0.6x0.6” (16x16mm) copper pad areas

Ratings and Characteristic Curves of S8A~S8M

FIG. 1- FORWARD CURRENT DERATING CURVE

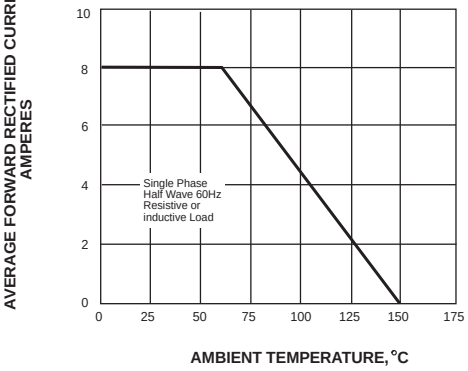


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

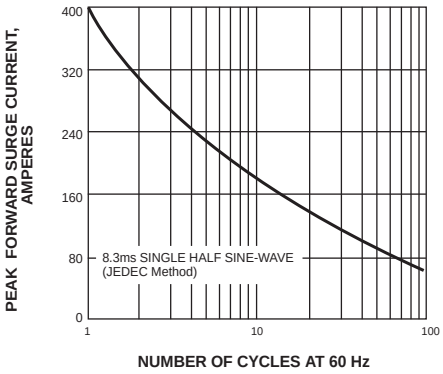


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

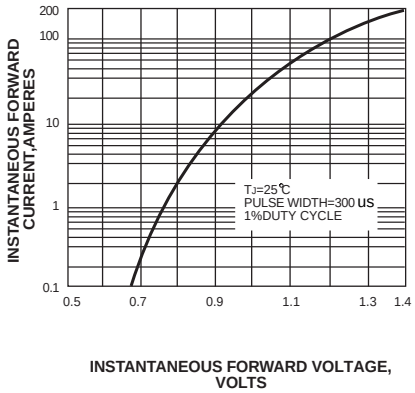


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

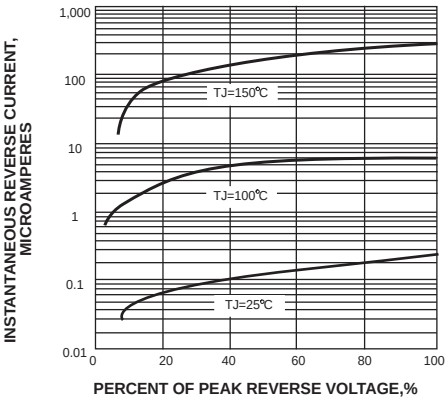


FIG. 5-TYPICAL JUNCTION CAPACITANCE

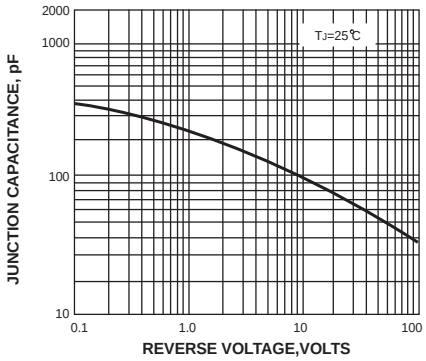


FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE