

I. General Purpose Rectifier

1.0A Surface Mount Silicon Rectifier

S07A~S07M

(Package: SOD-123)

<p>FEATURES</p> <ul style="list-style-type: none"> • Plastic package has Underwriters Laboratory Flammability Classification 94V-0 utilizing flame retardant epoxy moulding compound • For surface mounted applications • Exceeds environmental standards of MIL-S-19500 / 228 • Low Leakage current <p>MECHANICAL DATA</p> <ul style="list-style-type: none"> • Case : Molded plastic, JEDEC SOD-123 / Mini SMA • Terminals : Solder plated, solderable per MIL-STD-750, Method 2026 • Mounting Position : Any • Weight : 0.04 grams 	<p>Case: SOD-123 Dimensions in inches and (millimeters)</p>
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Ratings & Electrical Characteristics

Ratings	Symbol	S07A	S07B	S07D	S07G	S07J	S07K	S07M	Units
Maximum recurrent 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 $T_L=75$	I_O	1.0							Amps
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	25							Amps
Maximum instantaneous forward voltage at I_O DC	V_F	1.1							Volts
Maximum DC reverse current $T_a = 25$ at rated DC blocking voltage $T_a = 125$	I_R	5.0 50.0							μA
Typical reverse recovery time (Note 1)	T_{rr}	1.8							μs
Typical junction capacitance (Note 2)	C_j	4.0							pF
Operating junction and storage temperature range	T_j, T_{stg}	-55 to +150							

Note:

1. Reverse recovery test conditions: $I_F=0.5A$, $I_R=1.0A$, $I_{RR}=0.25A$
2. Measured at 1.0 MHz and applied reverse voltage of 4.0 volts

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Ratings and Characteristic Curves of S07A~S07M

FIG. 1 - FORWARD CURRENT DERATING CURVE

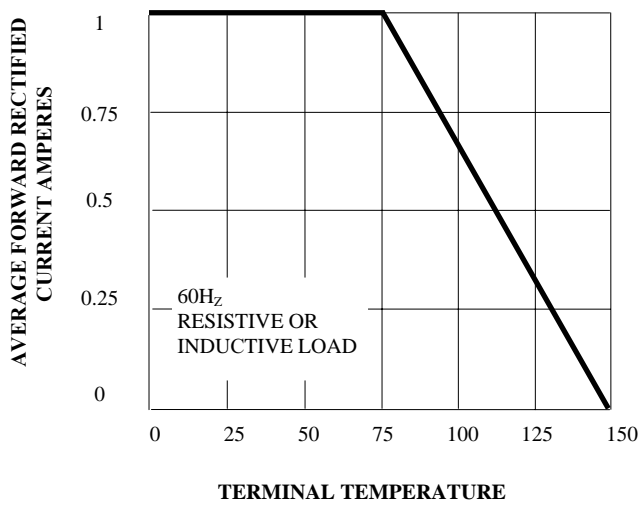


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

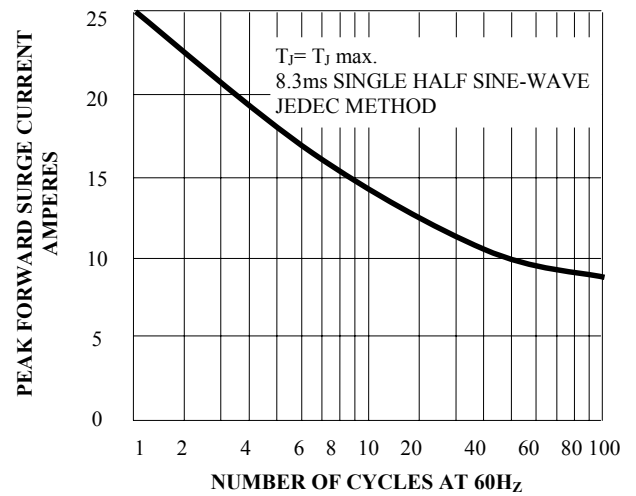


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

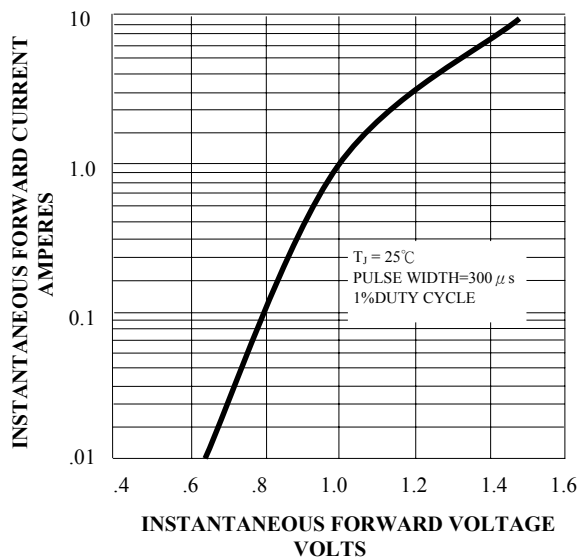


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

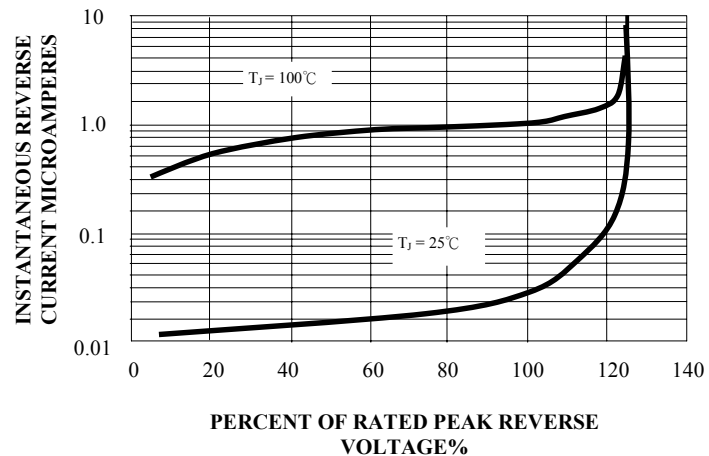


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

