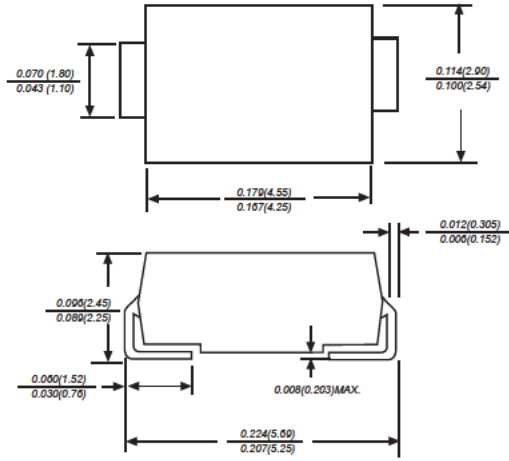


I. General Purpose Rectifier

1.0A Surface Mount Silicon Rectifier (Voltage range: 1300~2000 Volts) M13~M20 (Package: SMA (DO-214AC))

<p><u>FEATURES</u></p> <ul style="list-style-type: none"> • For surface mounted applications • Extremely low thermal resistance • Built-in strain relief, ideal for automated placement • Low leakage current • The plastic package carries Underwriters Laboratory Flammability Classification 94V-0. <p><u>MECHANICAL DATA</u></p> <ul style="list-style-type: none"> • Case : DO-214AC molded plastic body • Terminals: Solder plated, solderable per MIL-STD-750, Method 2026 • Polarity : Color band denotes cathode end • Mounting Position : Any • Weight : 0.083 grams 	 <p>Case: SMA Dimensions in inches and (millimetres)</p>
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Ratings & Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derate by 20%.

Characteristic	Symbol	M13	M16	M18	M20	Units
Maximum recurrent peak reverse voltage	V_{RRM}	1300	1600	1800	2000	Volts
Maximum RMS voltage	V_{RMS}	910	1120	1260	1400	Volts
Maximum DC blocking voltage	V_{DC}	1300	1600	1800	2000	Volts
Maximum average forward rectified current at $T_a = 75^\circ\text{C}$	I_o	1.0				Amps
Peak forward surge current $I_{FM(surge)}$: 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	30.0				Amps
Maximum instantaneous forward voltage at 1.0A	V_F	1.1				Volts
Maximum DC reverse current at rated DC blocking voltage	I_R	$T_a=25^\circ\text{C}$				μA
		$T_a=125^\circ\text{C}$				μA
Typical thermal resistance (Note 2)	R_{th-JL}	30.0				$^\circ\text{C}/\text{W}$
Maximum reverse recovery time (Note 3)	T_{rr}	2.5				μs
Typical junction capacitance (Note 1)	C_j	15.0				PF
Operating and storage temperature range	T_j, T_{stg}	-65 to + 175				$^\circ\text{C}$

Note :

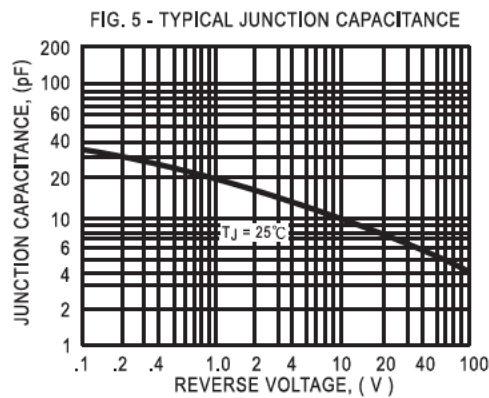
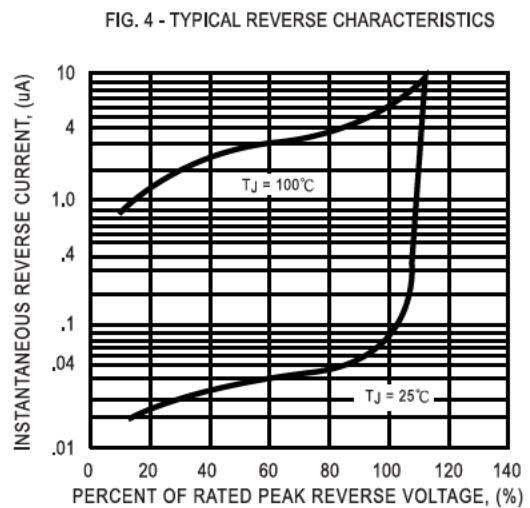
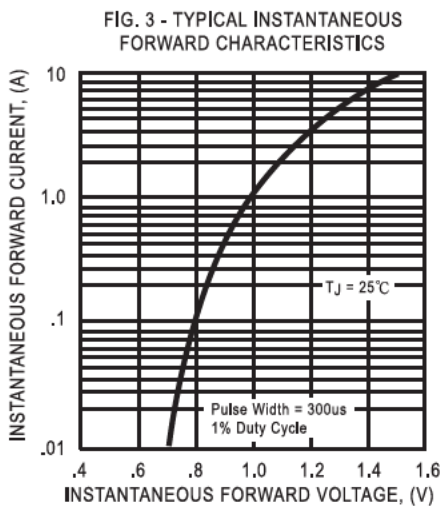
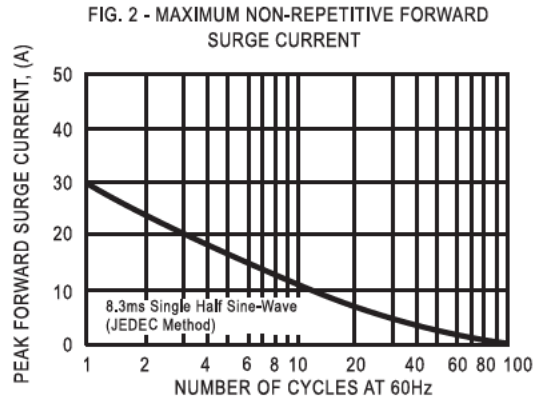
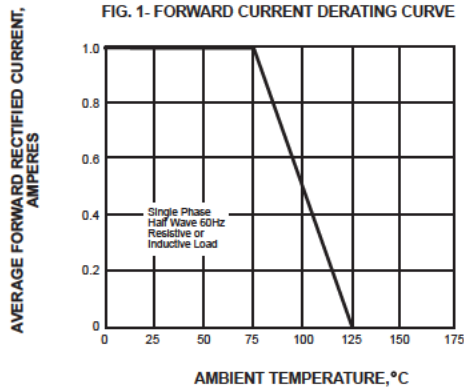
1. Measured at 1.0 MHz, and applied reverse voltage of 4.0VDC

2. Thermal resistance (Junction to Ambient), .24in² (6.0mm²) copper pads to each terminal

3. Test conditions: $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $I_{RR}=0.25\text{A}$

<http://patron-components.com/>

Ratings and Characteristic Curves of M13~M20



<http://patron-components.com/>