

I. General Purpose Rectifier

1.0A Surface Mount Silicon Rectifier (Voltage range: 1300~2000 Volts)

M13~M20

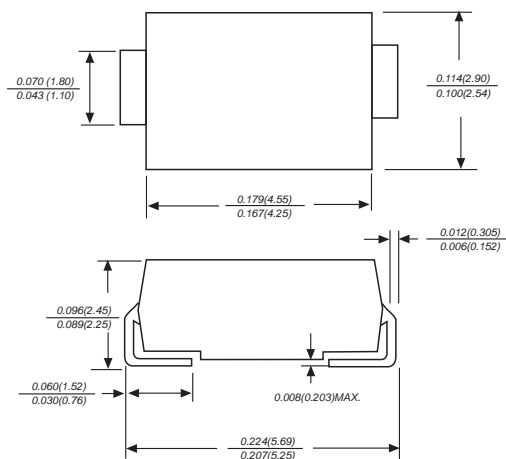
(Package: SMA (DO-214AC))

FEATURES

- 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.

MECHANICAL DATA

- 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



Case: SMA
Dimensions in inches and (millimetres)

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 $T_a = 75$	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 $T_a=25$	I_R	5.0				μA
at rated DC blocking voltage $T_a=125$		50.0				μA
Typical thermal resistance (Note 2)	R_{th-JL}	30.0				/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				

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: $I_F=0.5A$, $I_R=1.0A$, $I_{RR}=0.25A$

Ratings and Characteristic Curves of M13~M20

