



SURFACE MOUNT RECTIFIERS

SM301 THRU SM307

3.0 AMPS. Surface Mount Rectifiers

Features

For surface mounted application
 Low forward voltage drop
 High current capability
 Easy pick and place
 High surge current capability
 Plastic material used carries Underwrites Laboratory Classification 94V-O
 High temperature soldering: 250 °C / 10 seconds at terminals

Mechanical Data

Cases: SMA/DO-214AB Molded Plastic.
 Terminals: Solder plated
 Polarity: Indicated by cathode end
 Packaging: 16mm tape per EIA STD RS-481
 Weight: 0.21 gram

Maximum Ratings and Electrical Characteristics

Rating at 25 °C ambient temperature unless otherwise specified.
 Single phase, half wave, 60Hz, resistive or inductive load.
 For capacitive load, derate current by 20%

Type Number	SM301	SM302	SM303	SM304	SM305	SM306	SM307	Units
Maximum Recurrent peak Reverse Voltage	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current 0.375"(9.5mm) Lead length @T _L =75	3.0							A
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	100							A
Maximum Instantaneous Forward Voltage @3.0A	1.15							V
Maximum DC Reverse Current at Rated DC Blocking Voltage	10.0 (@T _A =25 °C) 250 (@T _A =125 °C)							μA μA
Maximum Reverse Recovery Time (Note 1)	2.5							nS
Typical Junction Capacitance (Note 2)	60							pF
Operating Temperature Range T _J	-55 to +150							
Storage Temperature Range T _{STG}	-55 to +150							

Notes: 1.Reverse Recovery Test conditions: I_F=0.5A, I_R=1.0A, I_{RR}=0.25A
 2.Measured at 1 MHz and Applied Reverse Voltage of 4.0 V.