

SMA11...110 Series

Surface Mount Standard Rectifier

Features

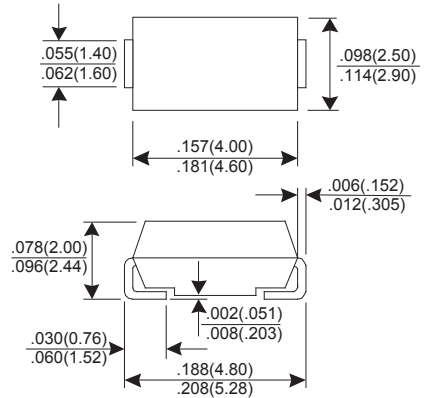
- ★ Low forward voltage drop
- ★ High current capability
- ★ Low reverse leakage current
- ★ High surge current capability
- ★ Glass passivated chip
- ★ Qualified as per AEC-Q101

Mechanical Data

- ★ Case: Molded plastic SMA/DO-214AC
- ★ Epoxy: UL 94V-0 rate flame retardant
- ★ Terminals: Solderable per MIL-STD-750 method 2026
- ★ Polarity: Color band denotes cathode end
- ★ Mounting position: Any
- ★ Weight: 0.064 gram

Voltage Range 50 to 1000 V
Current 1.0 Ampere

SMA/DO-214AC



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%.

PARAMETER	SYMBOL	SMA11	SMA12	SMA14	SMA16	SMA18	SMA110	UNIT
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	100	200	400	600	800	1000	V
Maximum RMS Voltage	V _{RMS}	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V _{DC}	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current T _A =110°C	I _(AV)	1.0						A
Peak Forward Surge Current, 8.3ms single Half sine-wave superimposed on rated load (JEDEC method)	I _{FSM}	30						A
Maximum Instantaneous Forward Voltage @ 1.0 A	V _F	1.1						V
Maximum DC Reverse Current @T _J =25°C At Rated DC Blocking Voltage @T _J =125°C	I _R	5.0 100						uA uA
Typical junction Capacitance (Note 1)	C _J	12						pF
Typical Thermal Resistance (Note 2)	R _{θJA}	75				85		°C/W
Operating Junction and Storage Temperature Range	T _J , T _{STG}	-55 to +150						°C

NOTES : (1) Thermal Resistance junction to ambient.
(2) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts DC.

FIG.1 - FORWARD CURRENT DERATING CURVE

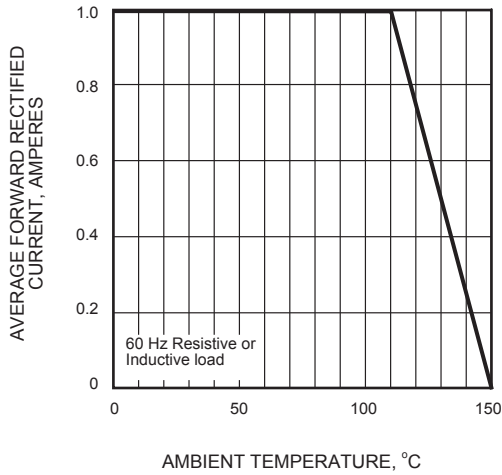


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

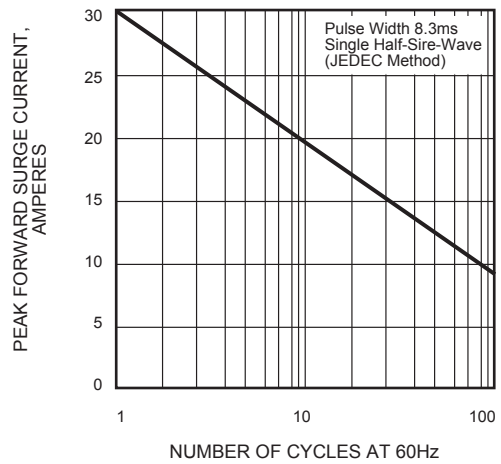


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

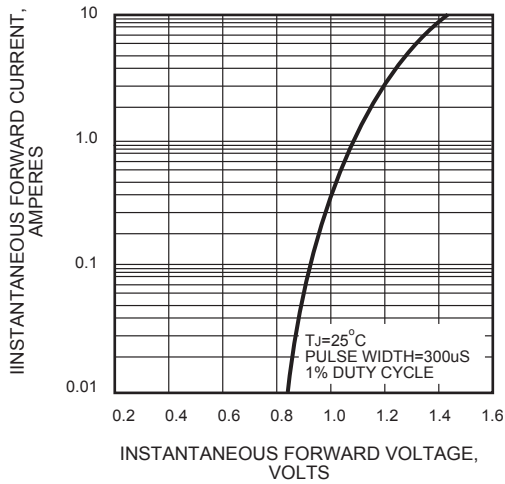


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

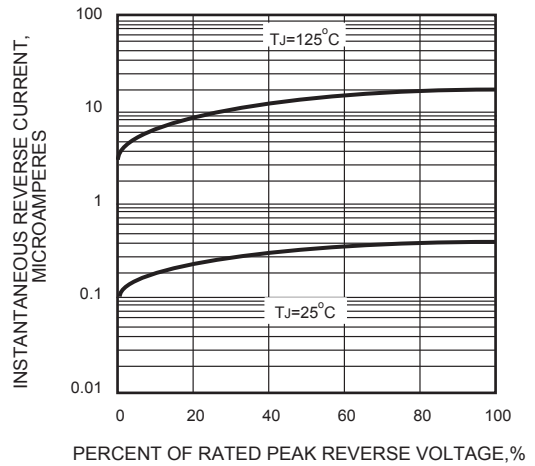


FIG.5 - TYPICAL JUNCTION CAPACITANCE

