TAYCHIPST

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIERS

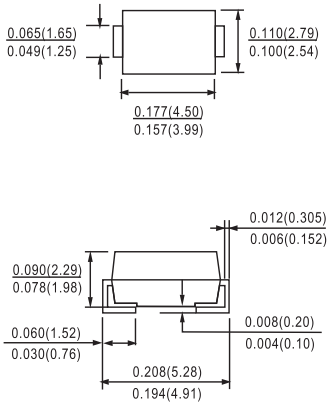
SM120A THRU SM1100A

20V-100V 1.0A

FEATURES

* Ideal for surface mount applications
* Easy pick and place
* Built-in strain relief
* Low forward voltage drop

DO-214AC(SMA)



Dimensions in inches and (millimeters)

Mechanical Data

* Case: Molded plastic
* Epoxy: UL 94V-0 rate flame retardant
* Metallurgically bonded construction
* Polarity: Color band denotes cathode end
* Mounting position: Any
* Weight: 0.063 grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

TYPE NUMBER	SM120A	SM130A	SM140A	SM150A	SM160A	SM180A	SM190A	SM1100A	UNITS
Maximum Recurrent Peak Reverse Voltage	20	30	40	50	60	80	90	100	V
Maximum RMS Voltage	14	21	28	35	42	56	63	70	V
Maximum DC Blocking Voltage	20	30	40	50	60	80	90	100	V
Maximum Average Forward Rectified Current See Fig. 1	1.0								A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	40								A
Maximum Instantaneous Forward Voltage at 1.0A	0.55			0.70		0.85			V
Maximum DC Reverse Current Ta=25°C	1.0								mA
at Rated DC Blocking Voltage Ta=100°C	10								mA
Typical Junction Capacitance (Note1)	110								pF
Typical Thermal Resistance R JA (Note 2)	50								°C/W
Operating Temperature Range TJ	-65 —+125			-65 —+150					°C
Storage Temperature Range TSTG	-65 — +150								°C

NOTES:

1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

2. Thermal Resistance Junction to Ambient.

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RATINGS AND CHARACTERISTIC CURVES SM120A THRU SM1100A

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

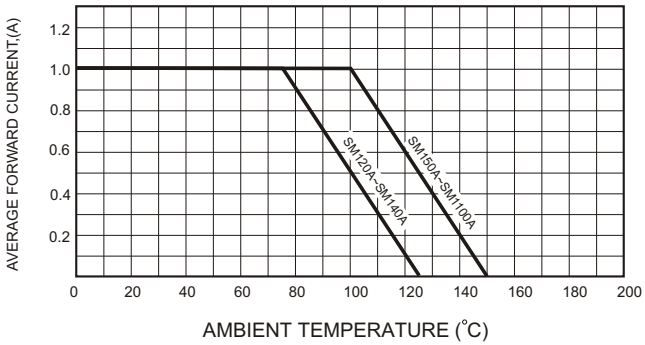


FIG.2-TYPICAL FORWARD CHARACTERISTICS

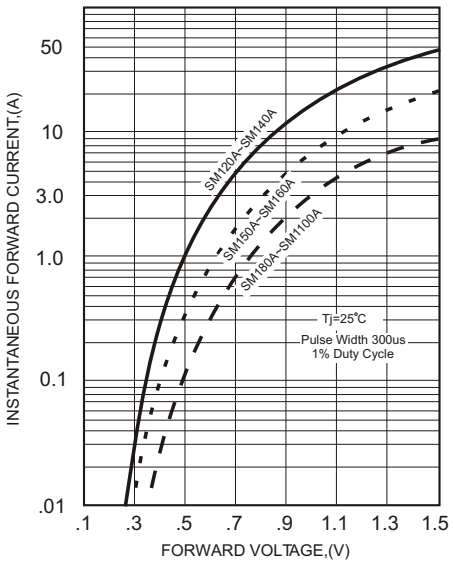


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

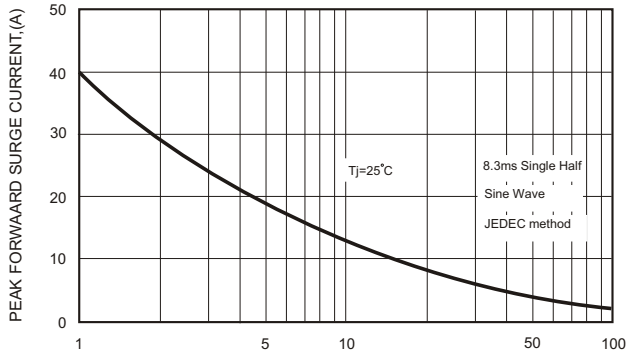


FIG.4-TYPICAL JUNCTION CAPACITANCE

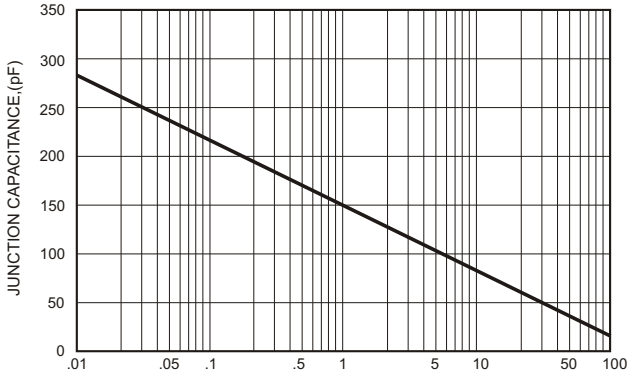
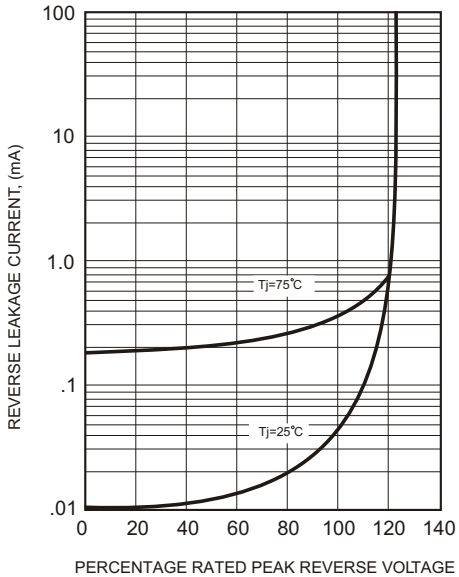


FIG.5 - TYPICAL REVERSE CHARACTERISTICS



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