

RoHS Compliant Product

A suffix of "-C" specifies halogen & lead-free

SMA

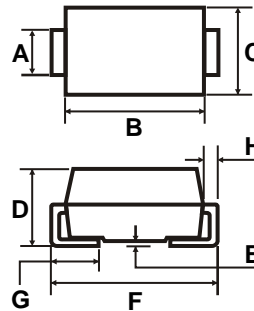
FEATURES

- * Low forward voltage drop
- * High current capability
- * High reliability
- * High surge current capability
- * Epitaxial construction



MECHANICAL DATA

- * Case: Molded plastic
- * Epoxy: UL 94V-0 rate flame retardant
- * Lead: Lead solderable per MIL-STD-202, method 208 guaranteed
- * Polarity: As Marked
- * Mounting position: Any
- * Weight: 0.093 grams (Approximately)



	Dimensions in Millimeters		Dimensions in Inches	
A	1.25	1.65	0.049	0.065
B	3.99	4.60	0.157	0.181
C	2.50	2.90	0.098	0.114
D	1.98	2.44	0.078	0.096
E	0.051	0.203	0.002	0.008
F	4.78	5.28	0.188	0.208
G	0.76	1.52	0.030	0.060
H	0.152	0.305	0.006	0.012

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating 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	SM320AL	UNITS
Maximum Recurrent Peak Reverse Voltage	20	V
Working Peak Reverse Voltage	20	V
Maximum DC Blocking Voltage	20	V
Maximum Average Forward Rectified Current	3	A
See Fig. 1		
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	100	A
Maximum Instantaneous Forward Voltage (I _F =3Amps, T _a = 25°C)	0.44	V
Maximum DC Reverse Current T _a =25°C	0.12	mA
at Rated DC Blocking Voltage T _a =125°C	8	mA
Typical Junction Capacitance (Note 1)	300	pF
Typical Thermal Resistance R _{θJC} (Note 2)	17	°C/W
Operating Temperature Range T _J	-50 ~ +150	°C
Storage Temperature Range T _{STG}	-65 ~ +175	°C

NOTES:

1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
2. Thermal Resistance Junction to Case.

RATING AND CHARACTERISTIC CURVES (SM320AL)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

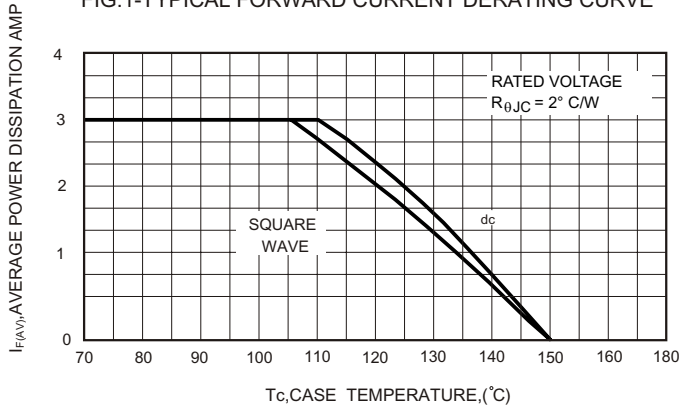


FIG.2- TYPICAL FORWARD VOLTAGE (PER LEG)

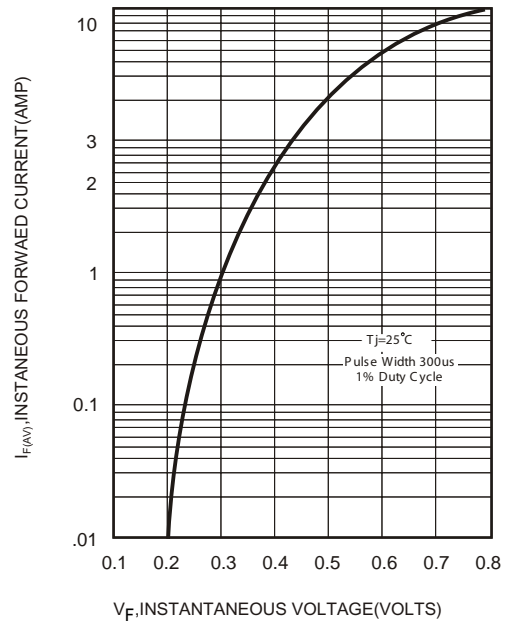


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

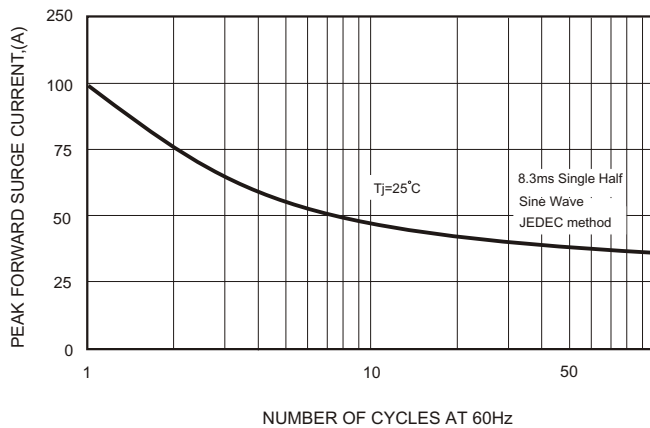


FIG.4-TYPICAL JUNCTION CAPACITANCE

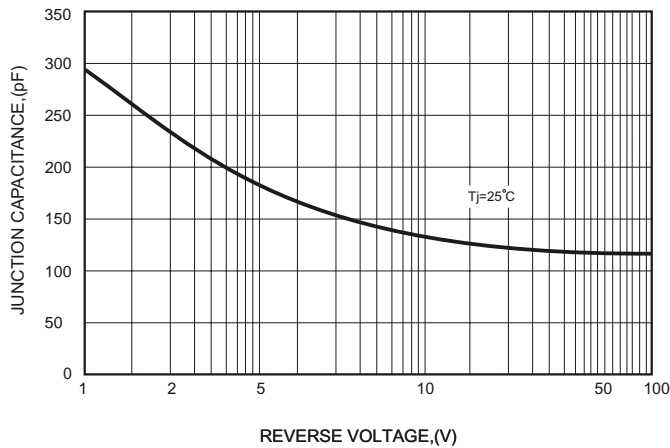


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

