

RoHS Compliant Product
A suffix of "-C" specifies halogen & lead-free

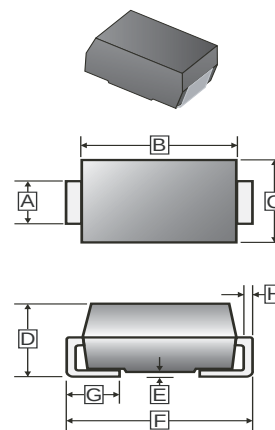
FEATURES

- 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)

SMA



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	1.25	1.65	E	0.051	0.203
B	3.99	4.60	F	4.78	5.28
C	2.50	2.90	G	0.76	1.52
D	1.98	2.44	H	0.152	0.305

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, de-rate current by 20%.)

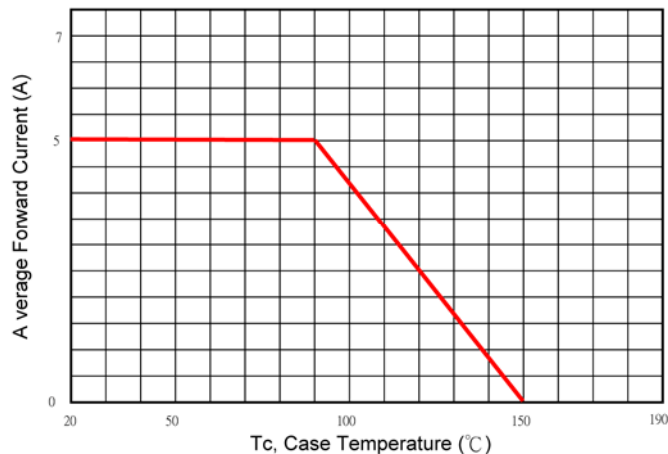
TYPE NUMBER	SYMBOL	SM520A	UNITS
Maximum ReCurrent Peak Reverse Voltage	V_{RRM}	20	V
RMS Input Voltage	V_{RMS}	14	
Maximum DC Blocking Voltage	V_R	20	
Average Forward Rectified Current See Fig. 1	$I_{F(AV)}$	5	A
Peak Forward Current @ 8.3 ms Half Sine	I_{FSM}	125	A
Maximum Instantaneous Forward Voltage V_F @ $I_{FM} = 5.0$ A	V_F	0.55	V
Maximum DC Reverse Current At Rated DC Blocking Voltage @ $T_J = 25^\circ\text{C}$ At Rated DC Blocking Voltage @ $T_J = 100^\circ\text{C}$	I_R	0.5 8	mA
Typical Junction Capacitance (Note 1)	C_J	600	pF
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	118	$^\circ\text{C} / \text{W}$
Typical Thermal Resistance (Note 3)	$R_{\theta JL}$	28	$^\circ\text{C} / \text{W}$
Operating Temperature Range	T_J	-50 ~ + 150	$^\circ\text{C}$
Storage temperature	T_{STG}	-65 ~ + 175	$^\circ\text{C}$

NOTES:

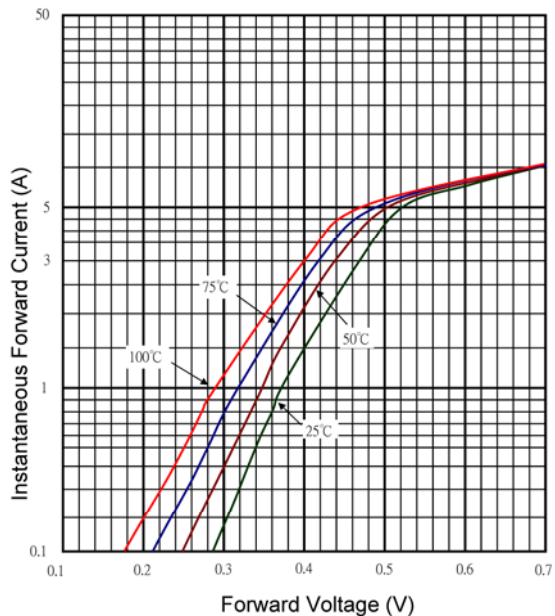
1. Measured at 1MHz and applied reverse voltage of 4.0 V D.C.
2. Thermal Resistance Junction to Ambient.
3. Thermal Resistance Junction to Lead.

RATINGS AND CHARACTERISTIC CURVES

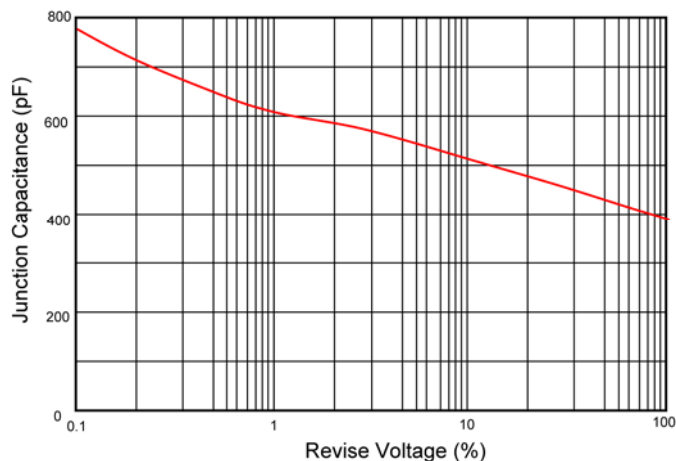
Typical Forward Current Derating Curve



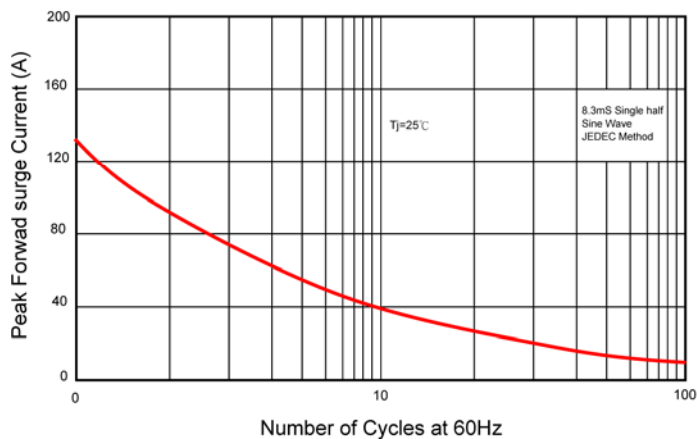
Typical Forward Characteristic



Typical Junction Capacitance



Maximum Non- Repetitive Forward Surge Current



Typical Reverse Characteristic

