

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

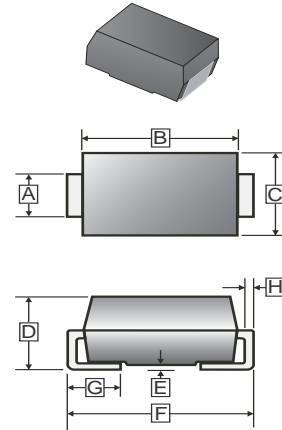
FEATURES

- 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%.)

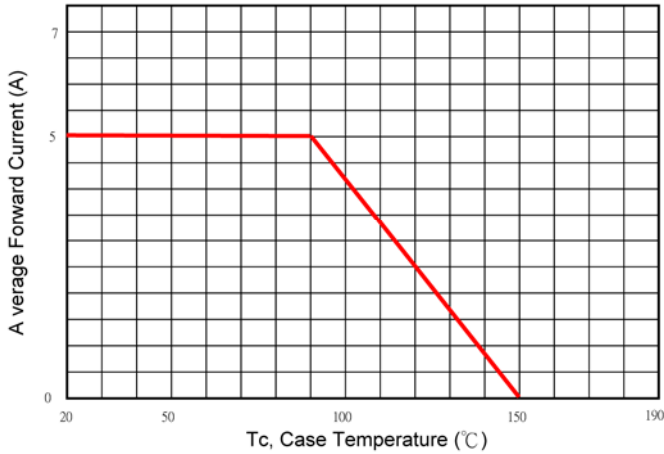
TYPE NUMBER	SYMBOL	SM520A	UNITS
Maximum ReCurrent Peak Reverse Voltage	V_{RRM}	20	V
RMS Input Voltage	V_{RMS}	14	
Maximum DC Blocking Voltage	V_R	20	
Average Forward Rectified Current See Fig. 1	$I_{F(AV)}$	5	A
Peak Forward Current @ 8.3 ms Half Sine	I_{FSM}	125	A
Maximum Instantaneous Forward Voltage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

NOTES:

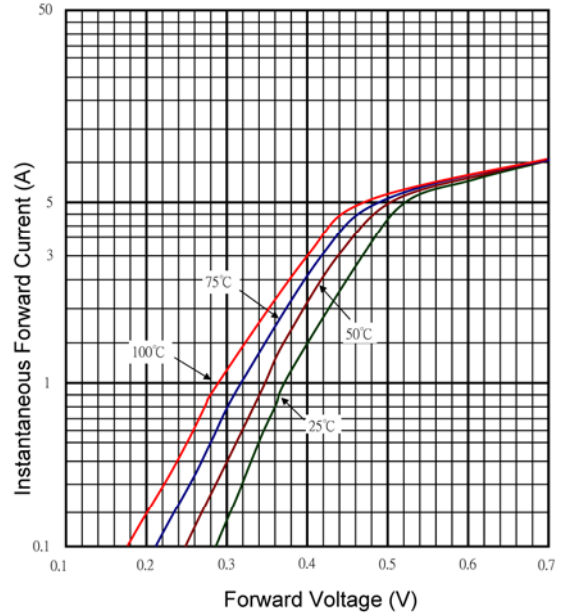
1. Measured at 1MHz and applied reverse voltage of 4.0 V D.C.
2. Thermal Resistance Junction to Ambient.
3. Thermal Resistance Junction to Lead.

RATINGS AND CHARACTERISTIC CURVES

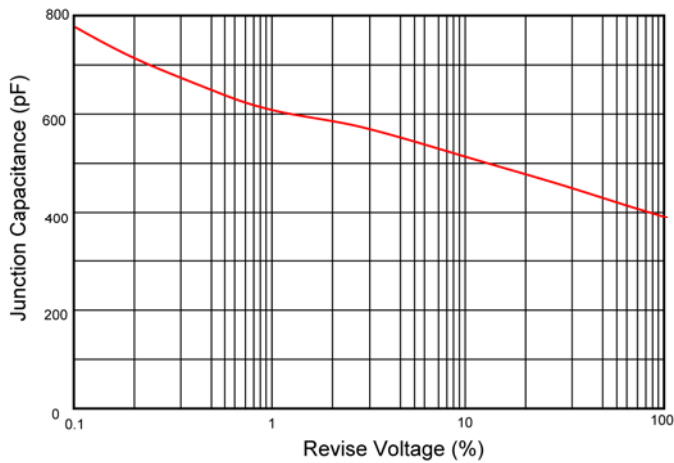
Typical Forward Current Derating Curve



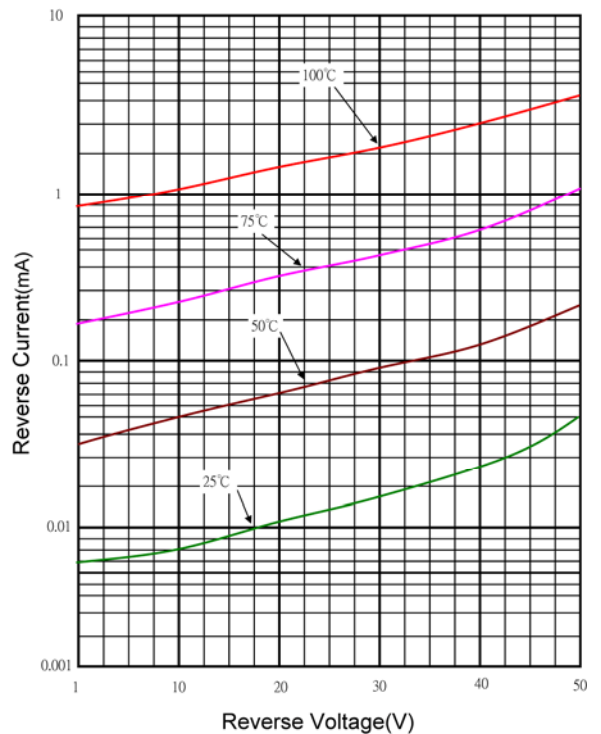
Typical Forward Characteristic



Typical Junction Capacitance



Typical Reverse Characteristic



Maximum Non- Repetitive Forward Surge Current

