Elektronische Bauelemente

SM220A~SM2100A

20 V ~ 100 V

2.0 Amp Surface Mount Schottky Barrier Rectifiers

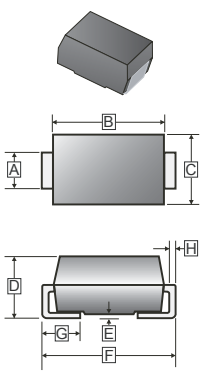
RoHS Compliant Product

A suffix of "-C" specifies halogen-free and RoHS Compliant

FEATURES

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

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

PACKAGING INFORMATION

- Metallurgically bonded construction
- Polarity: Color band denotes cathode end
- Case: Molded plastic
- Epoxy: UL94-V0 rate flame retardant
- Weight: 0.060 grams (approximately)

PACKAGE INFORMATION

Package	MPQ	Leader Size
SMA	5K	13 inch

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(Rating 25C ambient temperature unless otherwise specified. Single phase half wave, 60Hz, resistive or inductive load.
For capacitive load, de-rate current by 20%.)

Parameter		Symbol	Part Number				Unit
			SM220A	SM240A	SM260A	SM2100A	
Maximum Recurrent Peak Reverse Voltage		V_{RRM}	20	40	60	100	V
Working Peak Reverse Voltage		V_{RMS}	20	40	60	100	V
Maximum DC Blocking Voltage		V_R	20	40	60	100	V
Maximum Instantaneous Forward Voltage @ 2.0A		V_F	0.45	0.52	0.65	0.83	V
Maximum Average Forward Rectified Current, See Fig.1		I_O	2.0				A
Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load (JEDEC method)		I_{FSM}	50				A
Maximum Reverse Current [4]	T_A=25°C	I_R	0.2				mA
	T_A=100°C		10				
Typical Thermal Resistance [3]		$R_{\theta JA}$	55				°C / W
Typical Thermal Resistance [2]		$R_{\theta JC}$	20				°C / W
Diode Junction Capacitance (Typ.) [1]		C_J	170				pF
Storage and Operating Temperature Range		T_{STG}, T_J	-50 ~ 150, -60 to 175				°C

Note:

1. f=1MHz and applied 4V DC reverse voltage
2. Thermal Resistance Junction to Case.
3. Thermal Resistance Junction to Ambient.
4. Pulse Test：Pulse Width = 300 μs, Duty Cycle ≦ 2.0%.

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RATINGS AND CHARACTERISTIC CURVES

Typical Forward Current Derating Curve

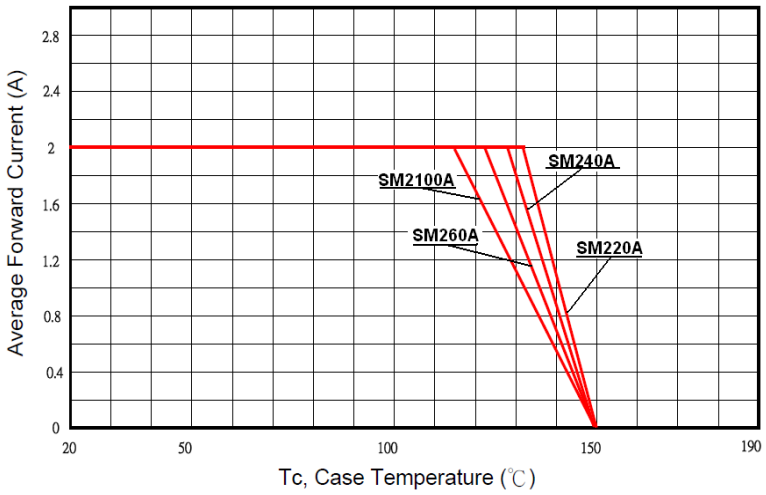

FIG.2 TYPICAL FORWARD CHARACTERISTIC

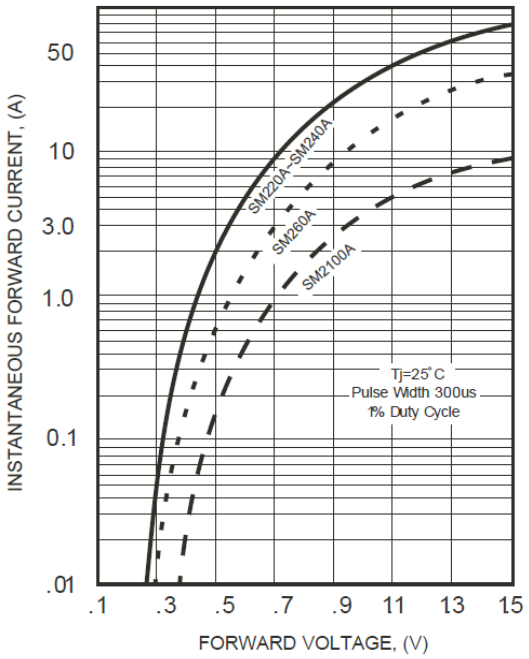

FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

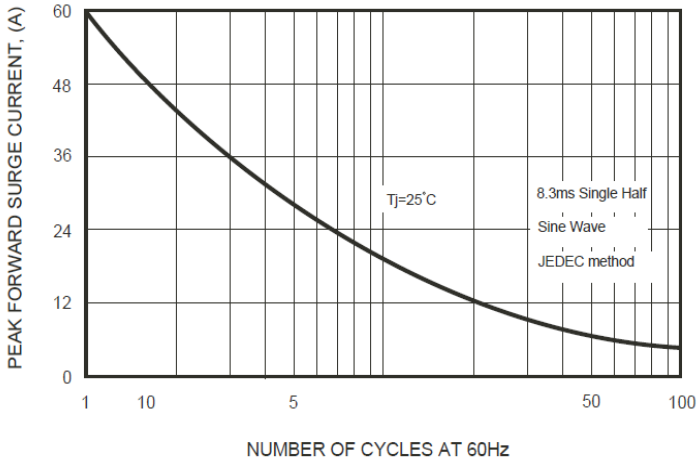

FIG.4-TYPICAL JUNCTION CAPACITANCE

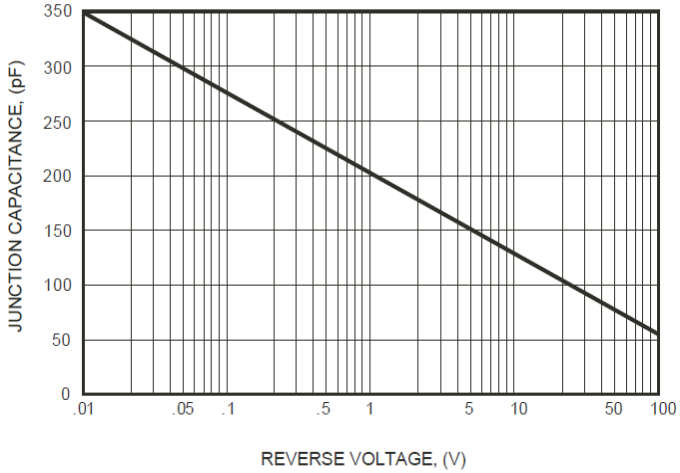

FIG.5 - TYPICAL REVERSE CHARACTERISTICS