

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

FEATURES

- Metal silicon junction, majority carrier conduction
- For surface mounted applications
- Low power loss, high efficiency
- High forward surge current capability
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications

MECHANICAL DATA

- Terminals: Solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end

MARKING

Part Number	Marking	Part Number	Marking
SM140AR-C	SS14	SM1150AR-C	SS120
SM160AR-C	SS16	SM1200AR-C	SS120
SM1100AR-C	SS110		

PACKAGE INFORMATION

Package	MPQ	Leader Size
SMA	5K	13 inch

ORDER INFORMATION

Part Number	Type
SM140AR-C~SM1200AR-C	Lead (Pb)-free and Halogen-free

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

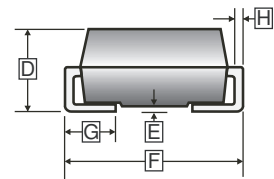
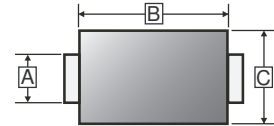
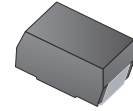
(Ratings at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60Hz resistive or inductive load, for capacitive load, derate by 20%)

Parameter	Symbol	PART NUMBER					Unit
		SM140 AR-C	SM160 AR-C	SM1100 AR-C	SM1150 AR-C	SM1200 AR-C	
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	40	60	100	150	200	V
Maximum RMS Voltage	V_{RMS}	28	42	70	105	140	V
Maximum DC Blocking Voltage	V_{DC}	40	60	100	150	200	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	1					A
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	25					A
Maximum Instantaneous Forward Voltage @ $I_F=1A$	V_F	0.55	0.7	0.85	0.9		V
Maximum DC Reverse Current @Rated DC Reverse Voltage	$T_A=25^\circ C$	0.3		0.2	0.1	mA	
	$T_A=100^\circ C$	10		5	2		
Typical Junction Capacitance ¹	C_J	110	80			pF	
Typical Thermal Resistance ²	$R_{\theta JA}$	90					°C/W
Operating Junction Temperature Range	T_J	-55~125					°C
Storage Temperature Range	T_{STG}	-55~150					°C

Notes:

1. Measured at 1 MHz and applied reverse voltage of 4V D.C.
2. P.C.B. mounted with 2"X2" (5X5 cm) copper pad areas.

SMA



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	1.23	1.65	E	-	0.3
B	3.99	4.75	F	4.70	5.28
C	2.30	2.90	G	0.75	1.52
D	1.90	2.62	H	0.15	0.31



RATINGS AND CHARACTERISTIC CURVES

Fig.1 Forward Current Derating Curve

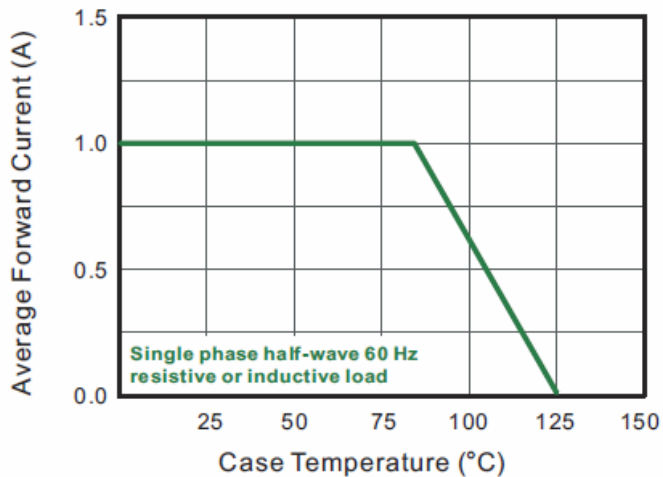


Fig.2 Typical Reverse Characteristics

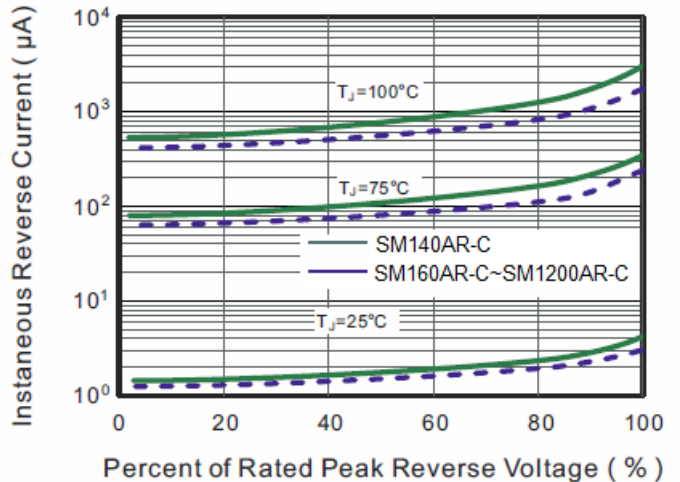


Fig.3 Typical Forward Characteristic

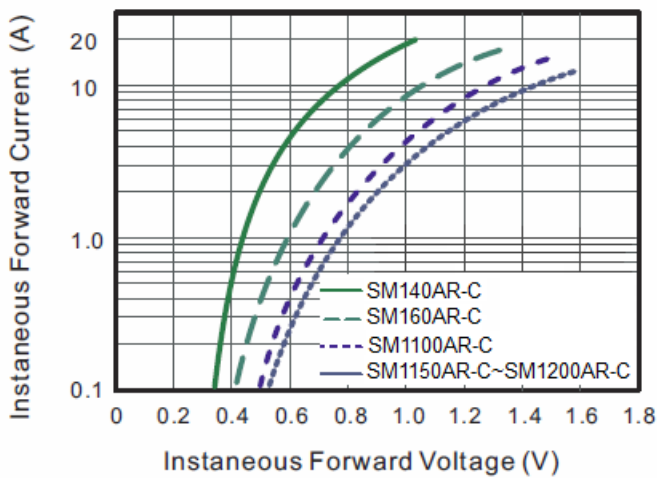


Fig.4 Typical Junction Capacitance

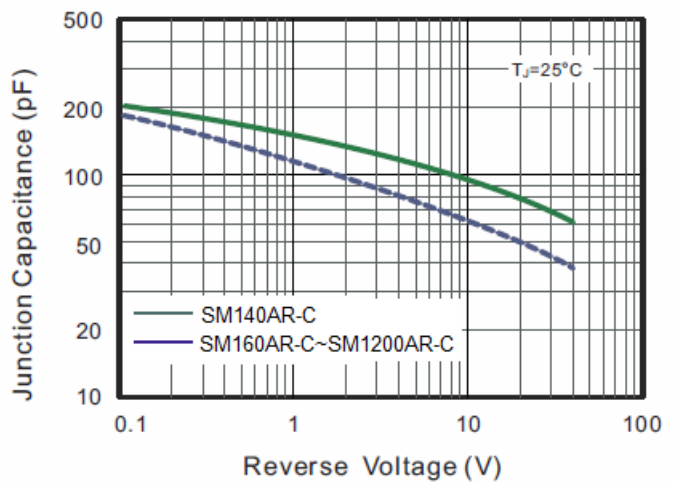


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

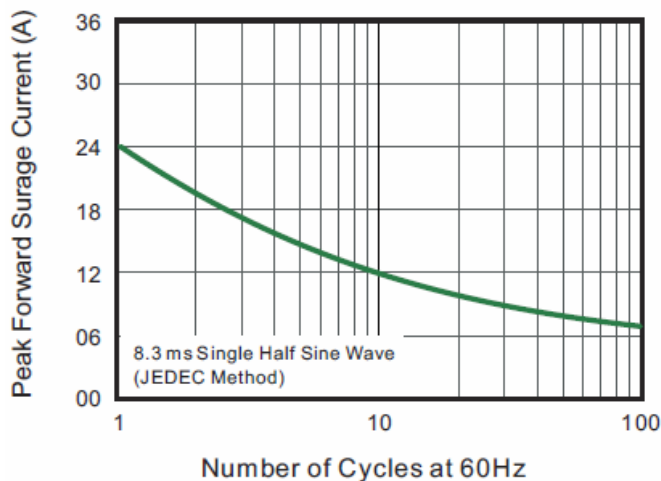


Fig.6- Typical Transient Thermal Impedance

