Schottky Barrier Rectifiers
Reverse Voltage 20 to200V Forward Current 1.0 A

Features


DO-214AC (SMA)

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- High forward surge capability
- Guard Ring Protection
- Low Forward Voltage
- High temperature soldering:260℃/10 seconds at terminals
- For use in low voltage high frequency inverters,free wheeling, and polarity protection applications

Mechanical Data

- Case: JEDEC DO-214AC molded plastic body over glass passivated chip
- Terminals: Solder plated, solderable per MIL-STD-750,method 2026
- Polarity: Color band denotes cathode end

Maximum Ratings & Thermal Characteristics(TA=25℃ unless otherwise noted)

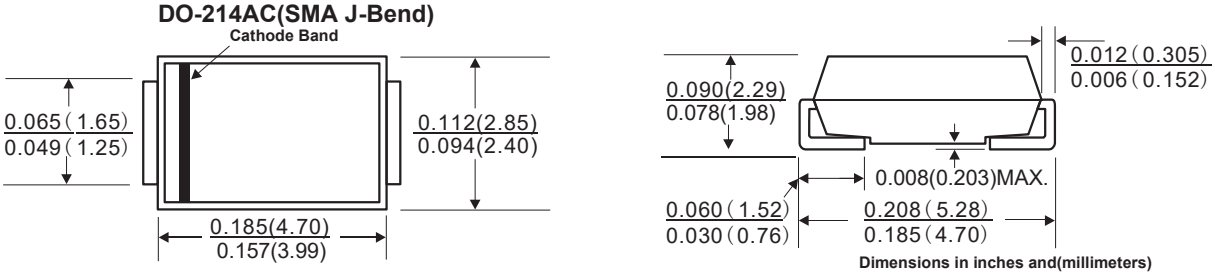
Parameter	Symbol	SM120A	SM140A	SM160A	SM180A	SM1100A	SM1150A	SM1200A	Unit
Marking Code		SS12	SS14	SS16	SS18	SS110	SS115	SS120	
Maximum repetitive peak reverse voltage	V_{RRM}	20	40	60	80	100	150	200	V
Maximum RMS voltage	V_{RMS}	14	28	42	56	70	105	140	V
Maximum DC blocking voltage	V_{DC}	20	40	60	80	100	150	200	V
Maximum average forward rectified current	$I_{F(AV)}$	1.0							A
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load	I_{FSM}	30							A
Thermal resistance from junction(1)	$R_{\theta JL}$	29							℃/W
Operating junction and storage temperature range	T_J,T_{STG}	-55 to +150							℃

Note :1. Thermal resistance from junction to ambient at 0.375” (9.5mm) lead length, P.C.B. mounted

Electrical Characteristics(TA=25℃ unless otherwise noted)

Parameter	Test Conditions		Symbol	SM120A	SM140A	SM160A	SM180A	SM1100A	SM1150A	SM1200A	Unit
Instantaneous forward voltage	I_F=1.0A		V_F	0.55		0.70	0.85		0.90		V
Reverse current	V_R=V_{DC}	T_J = 25 ℃	I_R	0.5					0.1		mA
		T_J = 125 ℃		5.0					2.0		
Typical junction capacitance	4.0 V ,1MHz		C_J	110					80		pF

Dimensions (DO-214AC)



Characteristic Curves (TA=25℃ unless otherwise noted)

Fig.1 Forward Current Derating Curve

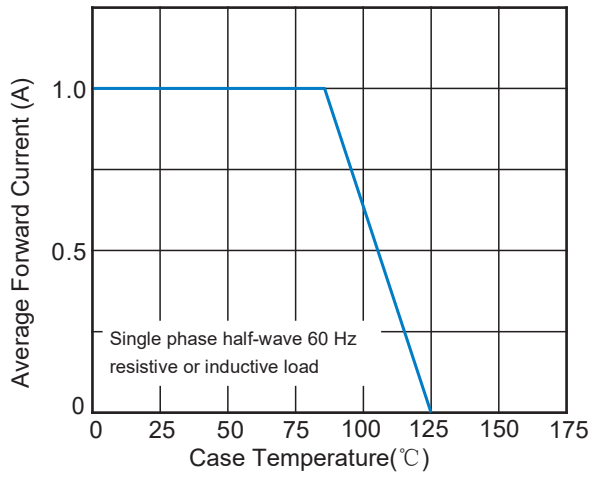


Fig.2 Maximum Non-Repetitive Peak Forward Surge Current

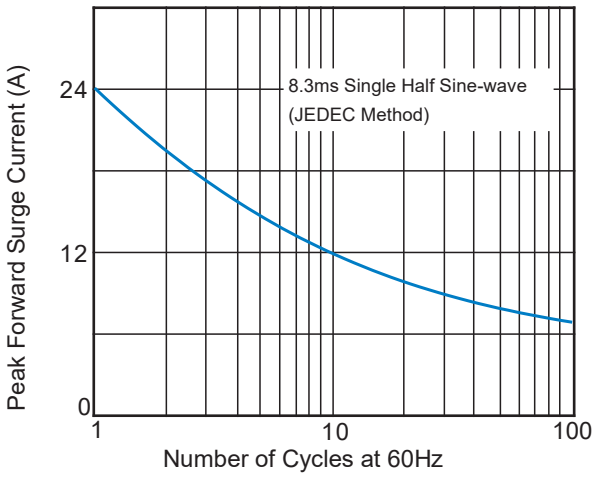


Fig.3 Typical Instantaneous Forward Characteristics

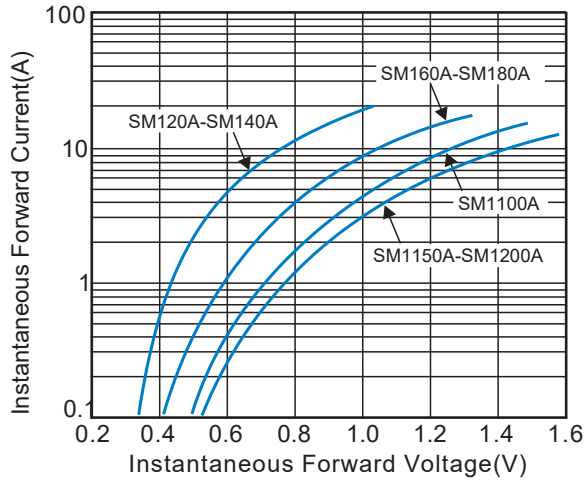


Fig.4 Typical Reverse Characteristics

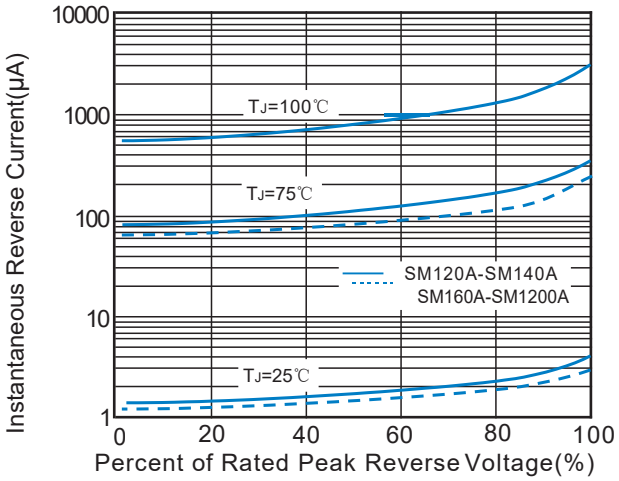


Fig.5 Typical Transient Thermal Impedance

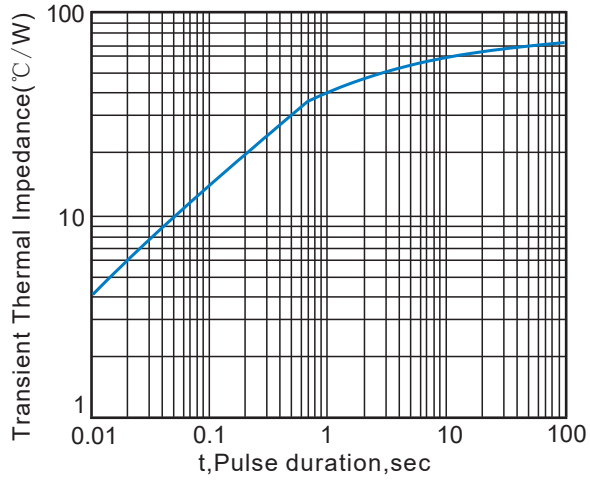


Fig.6 Typical Junction Capacitance