SEMICONDUCTOR

S3MC

Surface Mount Glass Passivated Rectifier
Reverse Voltage - 1000 Volts
Forward Current -3.0Ampere

Features

- The plastic package has Underwrites Laboratory Flammability Classification 94V-0
- Glass passivation chip junction
- High surge current capability
- Low leakage current
- Low forward voltage drop
- High temperature soldering guaranteed: 260°C/10 seconds at terminals
- Component in accordance to RoHS 2015/863/EU

IATF16949认证

SMC(DO-214AB)

Cathode ⊸|◂⊸ Anode

Mechanical Data

- Case: SMC molded plastic body
- Terminals: Plated axial lead, solderable per MIL-STD-750,method 2026
- Polarity: Color band denotes cathode end
- Mounting Position: Any

Applications

- For use in general purpose rectification of power supply,inverters, converters,and freewheeling diodes application.

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%.)

Parameters		Symbols	Value	Unis
Maximum recurrent peak reverse voltage		V_{RRM}	1000	Volts
Maximum RMS voltage		V_{RMS}	700	Volts
Maximum DC blocking voltage		V_{DC}	1000	Volts
Maximum average forward rectified current		$I_{F(AV)}$	3.0	Amps
Peak forward surge current (8.3ms half sine-wave superimposed on rated load (JEDEC method)		I_{FSM}	100	Amps
Maximum instantaneous forward voltage at 3.0 A		V_F	1.10	Volts
Maximum reverse current at rated DC blocking voltage	T_A=25°C	I_R	5.0	μA
	T_A=125°C		100.0	
Typical junction capacitance (Note 1)		C_J	50	pF
Typical Thermal Resistance(Note2)		$R_{\theta JA}$ $R_{\theta JL}$	47 17	°C/W
Operating and Storage temperature range		T_J, T_{STG}	-55 to+150	°C

Note 1.Measured at 1MHz and applied reverse voltage of 4.0V DC.
2.P.C.B. mounted with 0.60" x 0.60" (16.0 mm x 16.0 mm) copper pad areas

RATINGS AND CHARACTERISTICS CURVES OF S3MC

FIG.1-FORWARD CURRENT DERATING CURVE

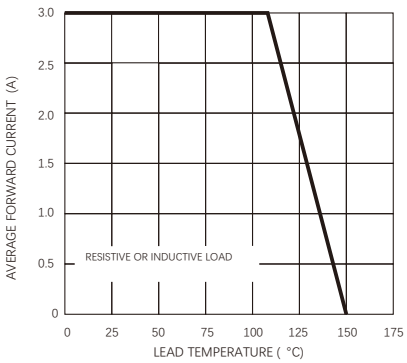


Fig.2-Typical Instantaneous Forward Characteristics

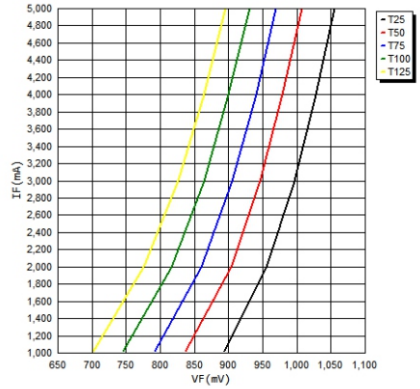


Fig.3-Maximum Non-repetitive Peak Forward Surge Current

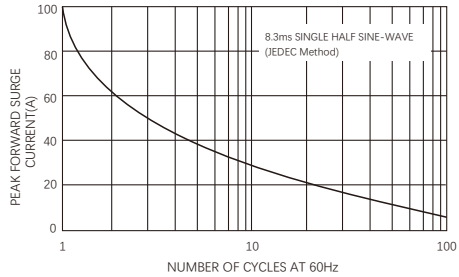


Fig.4-Typical Reverse Characteristics

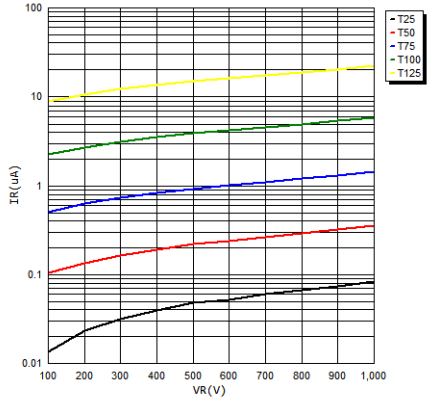
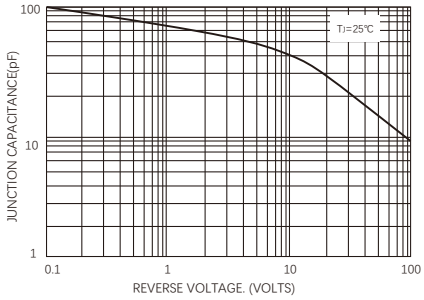


Fig.5-typical Junction Capacitance

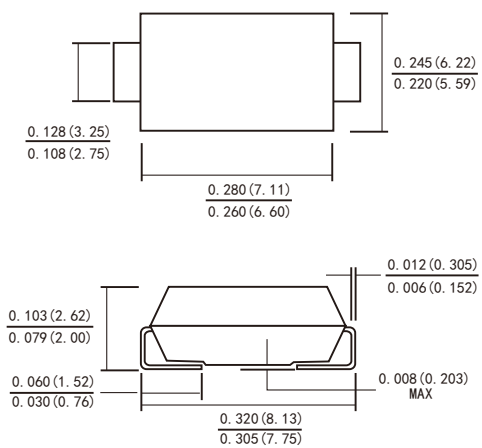


AVAILABALE PACK INFORMATION

Product code	Pack	Reel Size (mm)	Quantity (pcs/reel)	Box Size L×W×H (mm)	Quantity (reel/box)	Carton Size L×W×H (mm)	Quantity (box/carton)	Quantity (carton) (K)
S3MC-SMC	T/R	Φ330	3000	338×338×39	2	370×370×360	8	48

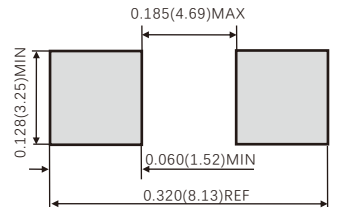
PACKAGE OUTLINE DIMENSIONS

SMC(DO-214AB)



Dimensions in inches and (millimeters)

Suggested PAD Layout



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