

Automotive Surface Mount Glass Passivated Rectifier

Reverse Voltage - 1000 Volts
 Forward Current -8.0Ampere

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

SMC(DO-214AB)



Cathode $\circ \rightarrow \circ$ 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	$I_{F(AV)}$	8.0	Amps
Peak forward surge current (8.3ms half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	200	Amps
Maximum instantaneous forward voltage at 8.0 A	V_F	1.05	Volts
Maximum reverse current at rated DC blocking voltage	$T_A=25^{\circ}C$	I_R	5.0
	$T_A=125^{\circ}C$		100.0
Typical junction capacitance (Note 1)	C_j	55	pF
Typical Thermal Resistance,Junction-Lead (Note 2)	$R_{\theta JL}$	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 0.55" x 0.55" (14.0 mm x 14.0 mm) copper pad areas

RATINGS AND CHARACTERISTICS CURVES OF S8MC-V

FIG.1-FORWARD CURRENT DERATING CURVE

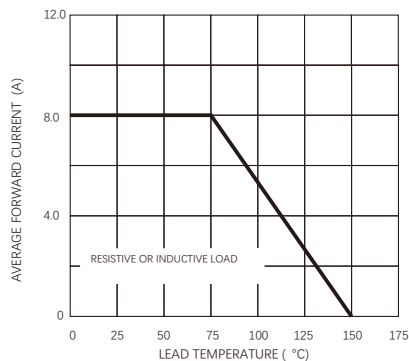


Fig.2-Typical Instantaneous Forward Characteristics

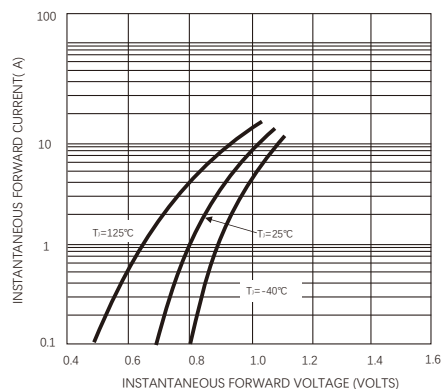


Fig.3-Maximum Non-repetitive Peak Forward Surge Current

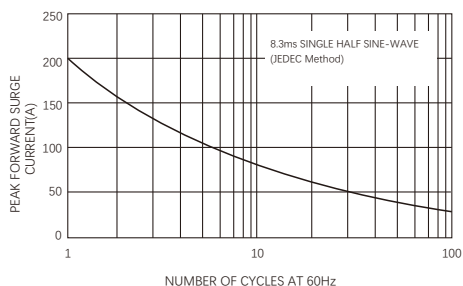


Fig.4-Typical Reverse Characteristics

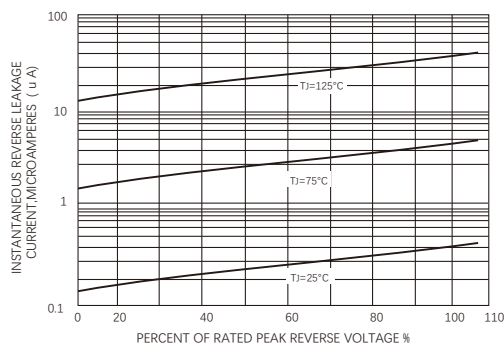
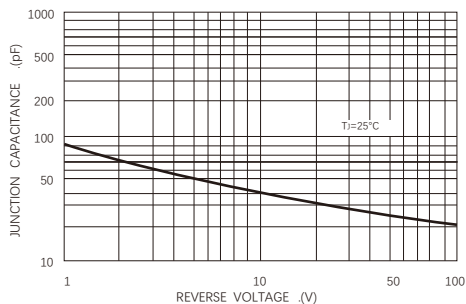


Fig.5-Typical Junction Capacitance

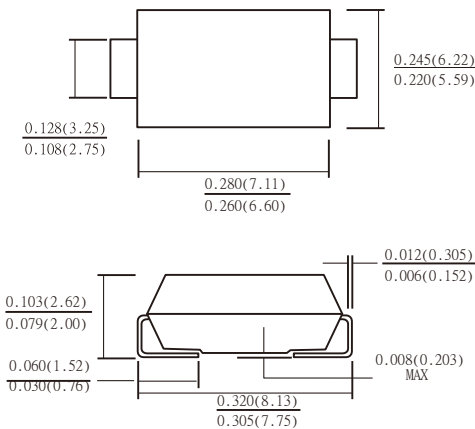


AVAILABALE PACK INFORMATION

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)
S8MC-V-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

