

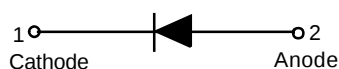
Features

- 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

Schematic & PIN Configuration



SMC



Circuit



Marking

Maximum Ratings and Electrical characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.

Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derate by 20 %.

Parameter	Symbols	SSC32	SSC34	SSC36	SSC38	SSC310	SSC312	SSC315	SSC320	Units
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	20	40	60	80	100	120	150	200	V
Maximum RMS voltage	V _{RMS}	14	28	42	56	70	84	105	140	V
Maximum DC Blocking Voltage	V _{DC}	20	40	60	80	100	120	150	200	V
Maximum Average Forward Rectified Current	I _{F(AV)}	3.0								A
Peak Forward Surge Current,8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I _{FSM}	80								A
Max Instantaneous Forward Voltage at 3 A	V _F	0.55		0.70		0.85		0.95		V
Maximum DC Reverse Current T _a = 25°C at Rated DC Reverse Voltage T _a = 100°C	I _R	0.5 5			0.3 3					mA
Typical Junction Capacitance ⁽¹⁾	C _j	450			350					pF
Typical Thermal Resistance ⁽²⁾	R _{θJA}	50								°C/W
Operating Junction Temperature Range	T _j	-55 ~ +125								°C
Storage Temperature Range	T _{stg}	-55 ~ +150								°C

(1) Measured at 1 MHz and applied reverse voltage of 4 V D.C

(2) P.C.B. mounted with 2.0" X 2.0" (5 X 5 cm) copper pad areas.

Typical Characteristics

Fig.1 Forward Current Derating Curve

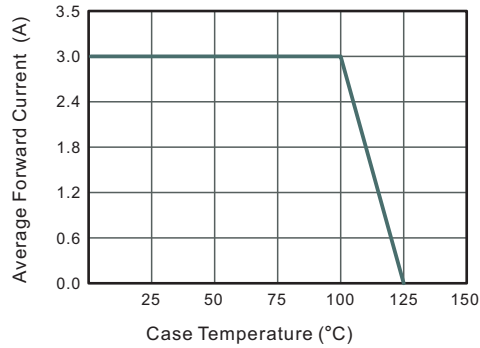


Fig.2 Typical Reverse Characteristics

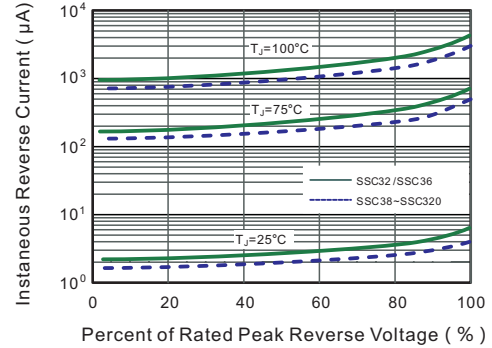


Fig.3 Typical Forward Characteristic

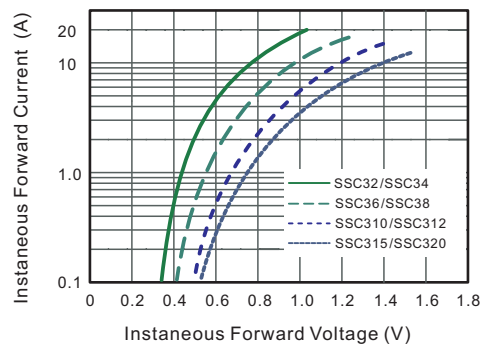


Fig.4 Typical Junction Capacitance

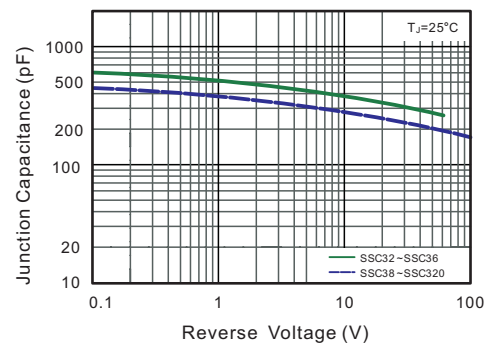


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

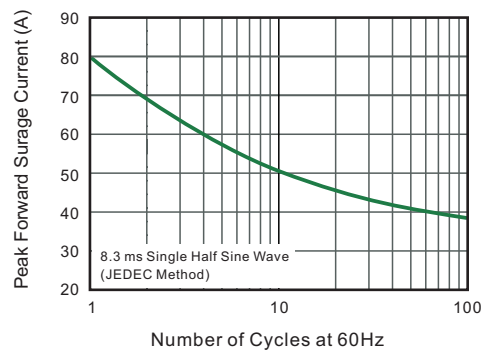
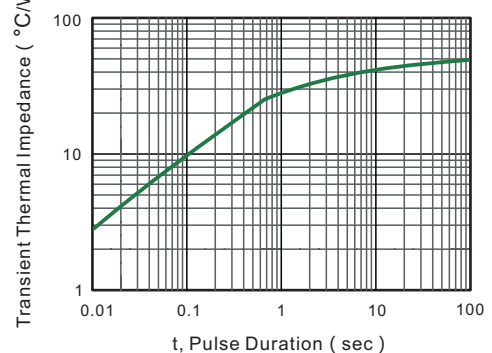


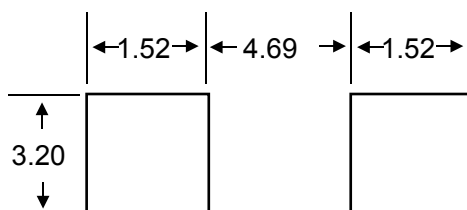
Fig.6- Typical Transient Thermal Impedance



Outline Drawing – SMC (DO-214AB)

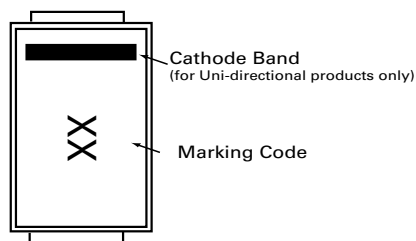
Dim	Millimeters		Inches	
	Min	Max	Min	Max
L	6.60	7.11	0.260	0.280
D	5.59	6.22	0.220	0.245
D1	2.90	3.20	0.114	0.126
T	7.75	8.13	0.305	0.320
T1	0.76	1.52	0.030	0.060
d	-	0.203	-	0.008
H1	2.06	2.62	0.079	0.103

Recommended Solder Pad Layout



Dimensions in mm

Part Marking System



Marking

Type number	Marking code
SSC32	SS32
SSC34	SS34
SSC36	SS36
SSC38	SS38
SSC310	SS310
SSC312	SS312
SSC315	SS315
SSC320	SS320

Package Information

Package Type	Description	Quantity (pcs)	Standard
DO-214AB	Tape & Reel - 16mm/13" tape	3000	EIA-481-D