Surface Mount Schottky Barrier Rectifier

Reverse Voltage - 20 to 200 V

Forward Current - 5 A

Pinning

1.Cathode	2.Anode



DO-214AB/SMC

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
- Lead free in comply with EU RoHS 2011/65/EU directives

Pb lead-free ROHS

MECHANICAL DATA

- Case: DO-214AB/SMC
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.22g /0.0077oz

Marking Code

SS52	SS52
SS54	SS54
SS56	SS56
SS58	SS58
SS510	SS510
SS512	SS512
SS515	SS515
SS520	SS520

Absolute Maximum Ratings and Electrical characteristics
Ratings at 25 ° ambient temperature unless otherwise specified.Single phase, half wave, 60Hz resistive or inductive load,for capacitive load, derate by 20 %

Parameter	Symbols	SS52	SS54	SS56	SS58	SS510	SS512	SS515	SS520	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	$I_{F(AV)}$	5.0								A
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed On Rated Load (JEDEC method)	I_{FSM}	175				150				A
Maximum Instantaneous Forward Voltage at 5 A	V_F	0.55		0.70		0.85				V
Maximum Instantaneous Reverse Current T_A = 25°C at Rated DC Reverse Voltage T_A = 100°C	I_R	1.0 50								mA
Typical Junction Capacitance (1)	C_j	600		400						pF
Typical Thermal Resistance (2)	$R_{\theta JA}$	35								°C/W
Operating Junction Temperature Range	T_j	-55 ~ +150								°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.

Fig.1 Forward Current Derating Curve

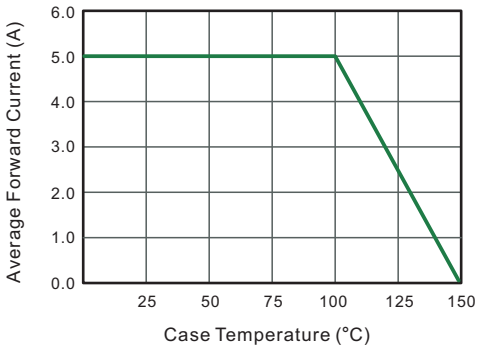


Fig.2 Typical Reverse Characteristics

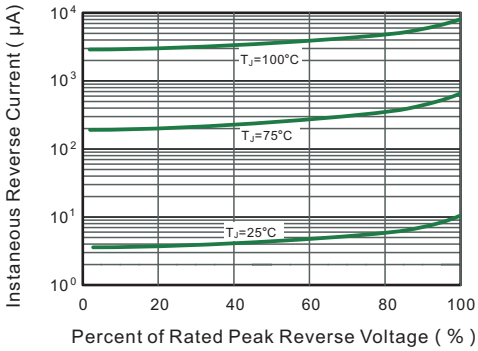


Fig.3 Typical Forward Characteristic

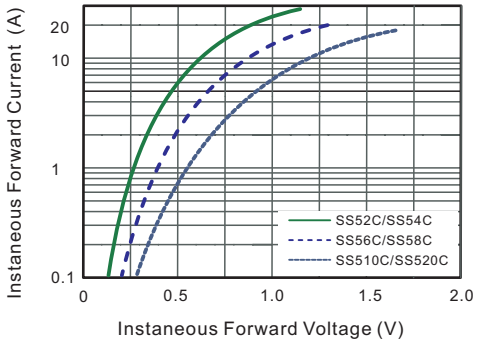


Fig.4 Typical Junction Capacitance

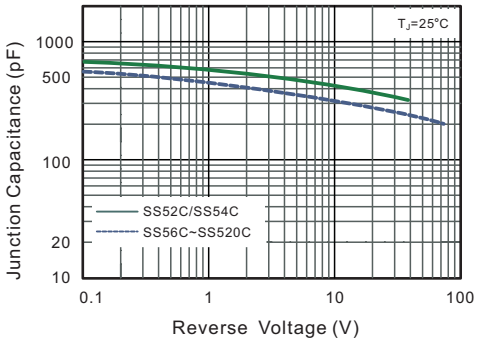


Fig.5 Maximum Non-Repetitive Peak Forward Surage Current

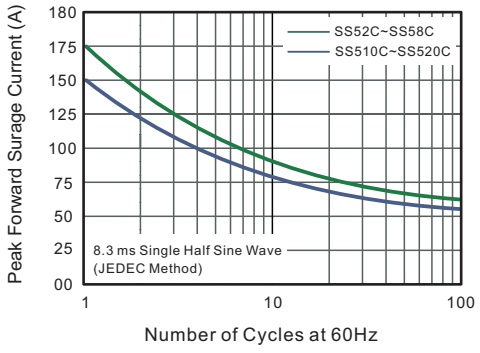
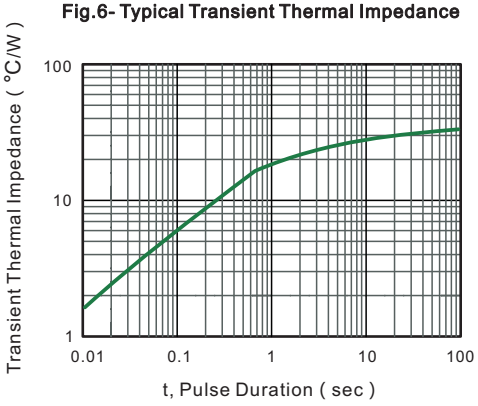
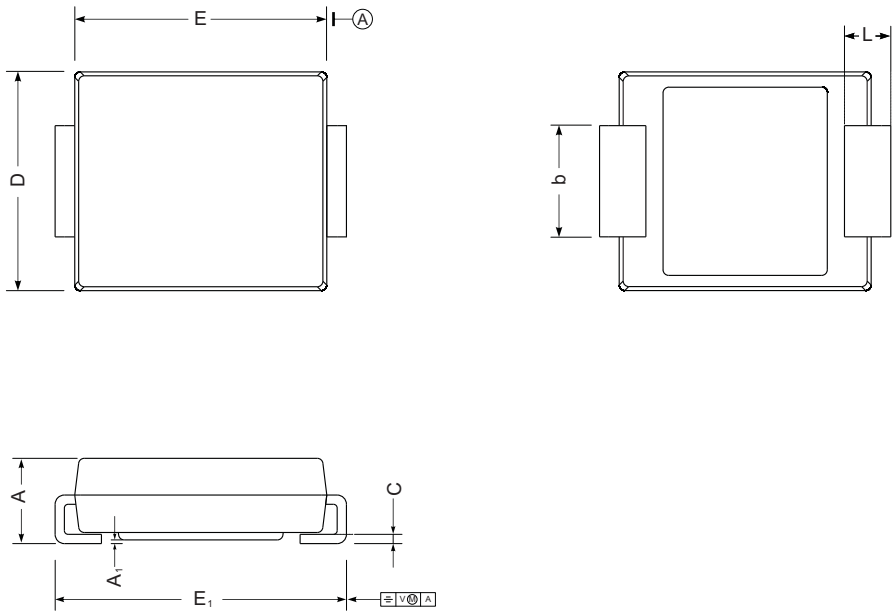


Fig.6- Typical Transient Thermal Impedance



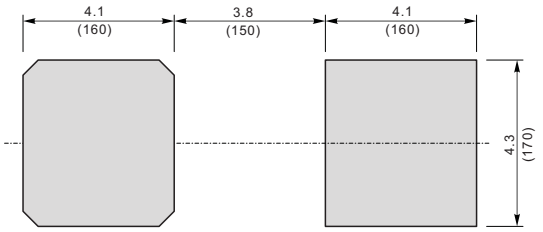
Package Outline DO-214AB SMC

Plastic surface mounted package; 2 leads



UNIT		A	E	D	E_1	A_1	C	L	b
mm	max	2.62	7.0	6.2	8.0	0.21	0.31	1.6	3.25
	min	2.00	6.5	5.6	7.6	0.05	0.15	0.9	2.75
mil	max	103	276	244	315	8.3	12	63	128
	min	79	256	220	299	2.0	5.9	35	108

The recommended mounting pad size



Unit : mm (mil)

Summary of Packing Options

Package	Packing Description	Packing Quantity	Industry Standard
DO-214AB SMC	Tape/Reel,13”reel	3000	EIA-481-1