

Surface Mount Schottky Barrier Rectifier

Reverse Voltage – 40~100V

Forward Current - 5 A

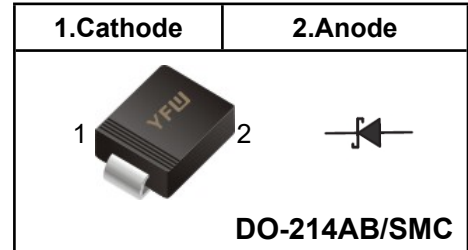
FEATURES

- ◆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

MECHANICAL DATA

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

Pinning



Marking Code

SSL54C	SSL54
SSL545C	SSL545
SSL55C	SSL55
SSL56C	SSL56
SSL510C	SSL510

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	SSL54C	SSL545C	SSL55C	SSL56C	SSL510C	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	40	45	50	60	100	V
Maximum RMS voltage	V_{RMS}	28	32	35	42	70	V
Maximum DC Blocking Voltage	V_{DC}	40	45	50	60	100	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}	150					A
Maximum Instantaneous Forward Voltage at 5 A	V_F	0.45			0.50	0.60	V
Maximum Instantaneous Reverse Current at Rated DC Reverse Voltage <small>$T_A = 25^{\circ}C$ $T_A = 100^{\circ}C$</small>	I_R	0.5 50					mA
Typical Junction Capacitance ⁽¹⁾	C_j	500	300				pF
Typical Thermal Resistance ⁽²⁾	$R_{\theta JA}$	60					°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

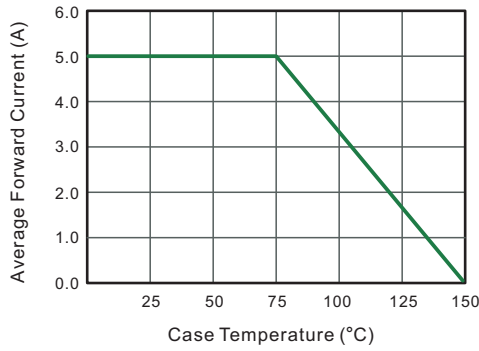


Fig.2 Typical Reverse Characteristics

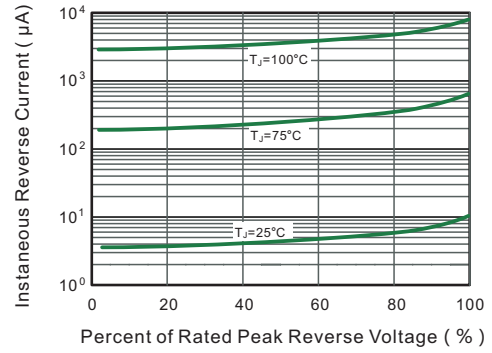


Fig.3 Typical Forward Characteristic

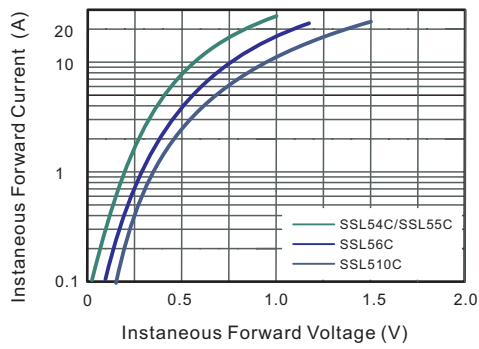


Fig.4 Typical Junction Capacitance

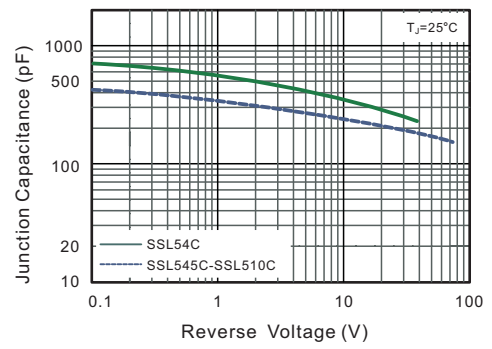


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

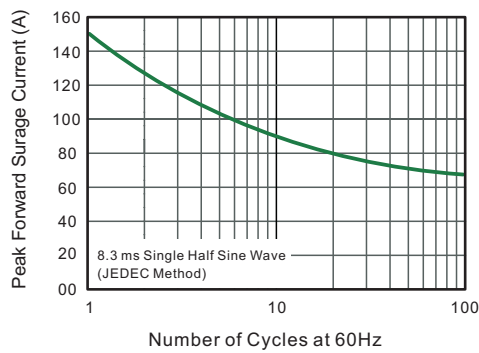
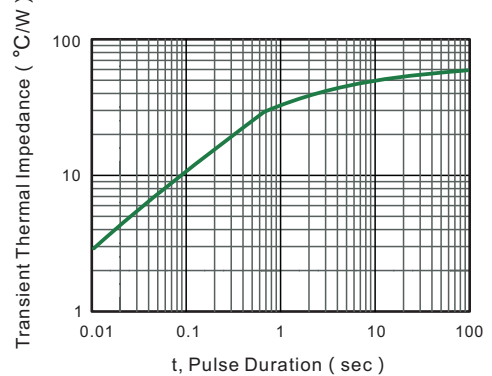
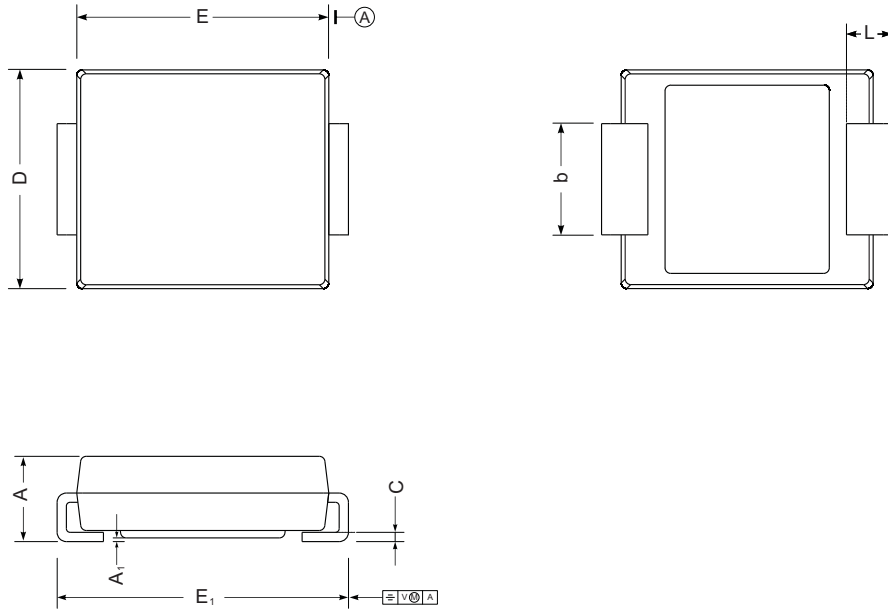


Fig.6- Typical Transient Thermal Impedance



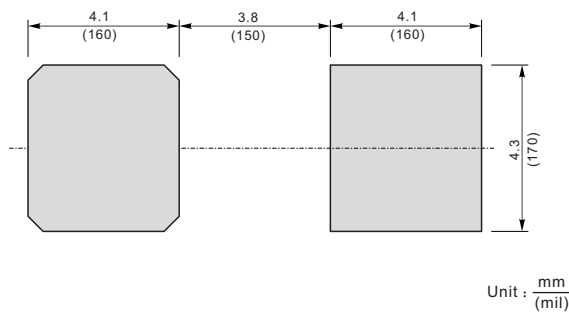
Package Outline DO-214AB SMC

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



Summary of Packing Options

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