

SURFACE MOUNTSCHOTTKY RECTIFIERS

Reverse Voltage - 40V~200V

Forward Current - 1.0 A

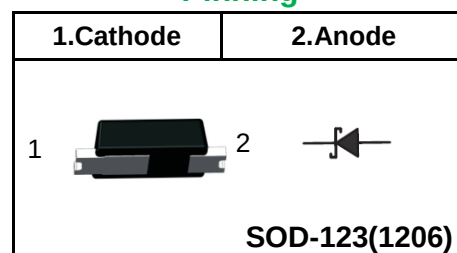
FEATURES

- ◆Metal silicon junction, majority carrier conduction
- ◆Heatsink structure
- ◆Low power loss, high efficiency
- ◆Super Low VF Schottky barrier diodes
- ◆For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications
- ◆LeadfreeincomplywithEU RoHS2011/65/EU directives

MECHANICAL DATA

- ◆Case:SOD-123(1206)
- ◆Terminals: Solderable per MIL-STD-750, Method2026
- ◆Approx. Weight: 15mg /0.0005oz

Pinning



Marking Code

SS12	SK12
SS14	SK14
SS16	SK16
SS18	SK18
SS110	SK110
SS115	SK115
SS120	SK120

Absolute Maximum Ratings and Electrical characteristics

Ratings at25 ° ambient temperature unless otherwise specified.Single phase, half wave, 60Hz resistive or inductive load, for capacitive load, derate by 20 %

Parameter	Symbols	SS12	SS14	SS16	SS18	SS110	SS115	SS120	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	20	40	60	80	100	150	200	V
Maximum RMS voltage	V_{RMS}	14	28	42	56	70	105	140	V
Maximum DC Blocking Voltage	V_{DC}	20	40	60	80	100	150	200	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	1.0							A
Peak Forward Surge Current, 8.3ms Single Half Sine-waveSuperimposed On Rated Load (JEDEC method)	I_{FSM}	25							A
Maximum Instantaneous Forward Voltageat 1 A	V_F	0.55	0.65	0.85	0.95				v
Maximum Instantaneous Reverse Current $T_A = 25^{\circ}C$ atRated DC Reverse Voltage $T_A = 100^{\circ}C$	I_R	0.5 20	0.3 15						mA
Typical Junction Capacitance ⁽¹⁾	C_j	60	40						pF
Typical Thermal Resistance ⁽²⁾	$R_{\theta JA}$	120							°C/W
Operating Junction Temperature Range	T_j	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 8 X 8mmcopper pad areas.

Fig.1 Forward Current Derating Curve

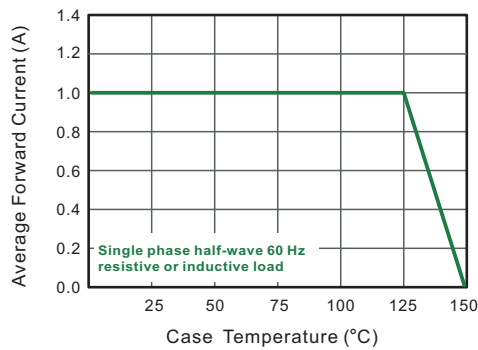


Fig.2 Typical Reverse Characteristics

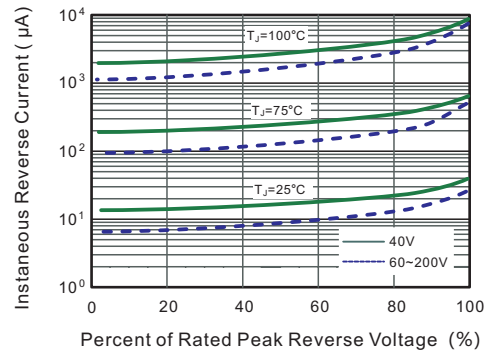


Fig.3 Typical Forward Characteristic

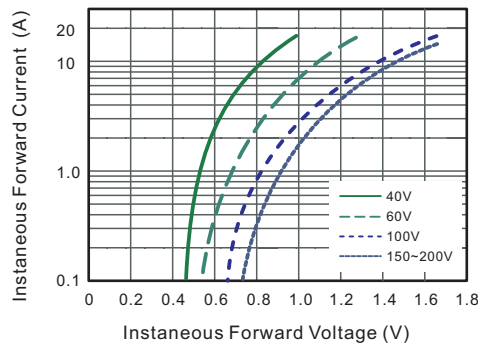


Fig.4 Typical Junction Capacitance

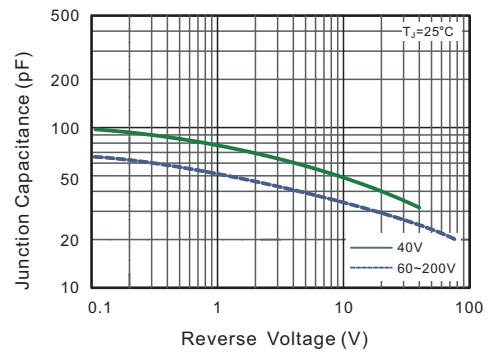


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

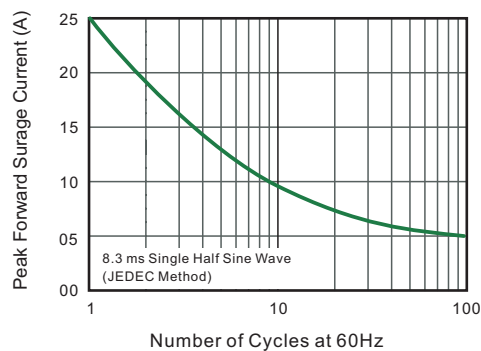
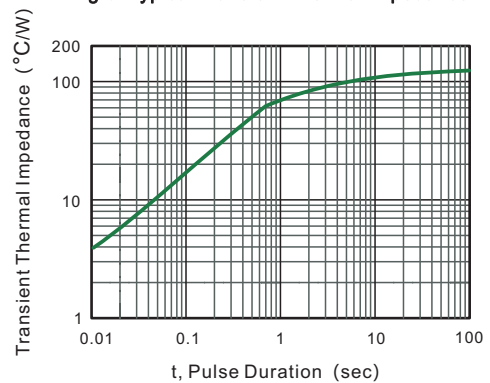


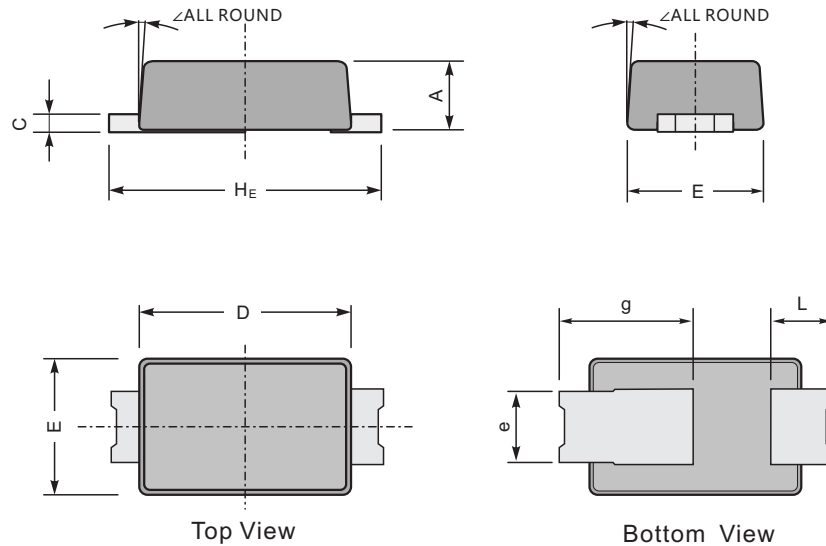
Fig.6- Typical Transient Thermal Impedance



Package Outline

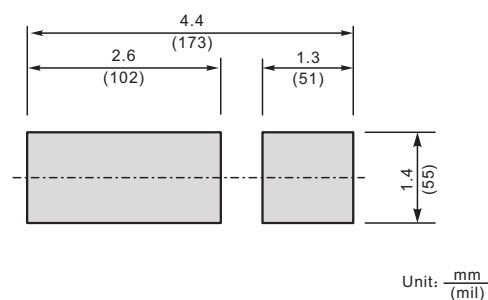
SOD-123(1206)

Plastic surface mounted package; 2 leads



UNIT		A	C	D	E	e	g	L	H _E	∠
mm	max	1.0	0.3	2.9	1.9	1.15	2.0	1.1	3.8	12°
	min	0.8	0.2	2.7	1.7	0.8	1.5	0.7	3.5	
mil	max	39	11.8	114	75	45	79	43	150	
	min	31	7.9	106	67	31	59	28	138	

The recommended mounting pad size



Summary of Packing Options

Package	Packing Description	Packing Quantity	Industry Standard
SOD-123(1206)	Tape/Reel, 7" reel	3000	EIA-481-1