SS14HE THRU SS120HE

Surface Mount Schottky Barrier Rectifier
Reverse Voltage - 40 to 200 V
Forward Current - 1.0A

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode

Top View
Simplified outline SOD-123HE and symbol

FEATURES

- Metal silicon junction, majority carrier conduction
- For surface mounted applications
- Low power loss, high efficiency
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications

MECHANICAL DATA

- Case: SOD-123HE
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight:15mg/0.00048oz

Absolute 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 %

Parameter	Symbols	SS14HE	SS16HE	SS110HE	SS115HE	SS120HE	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	40	60	100	150	200	V
Maximum RMS voltage	V_{RMS}	28	42	70	105	140	V
Maximum DC Blocking Voltage	V_{DC}	40	60	100	150	200	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	1.0					A
Peak Forward Surge Current,8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	25					A
Max Instantaneous Forward Voltage at 1 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 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	-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 8X 8 mm copper pad areas.

Fig.1 Forward Current Derating Curve

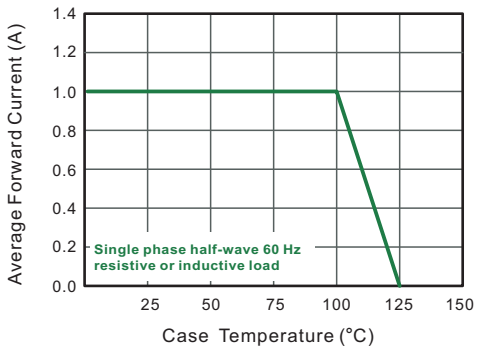


Fig.2 Typical Reverse Characteristics

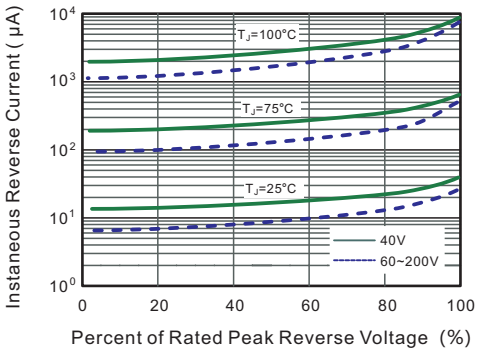


Fig.3 Typical Forward Characteristic

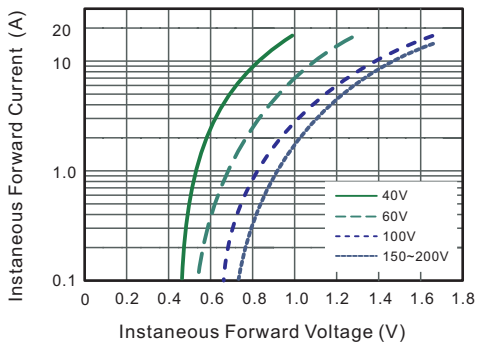


Fig.4 Typical Junction Capacitance

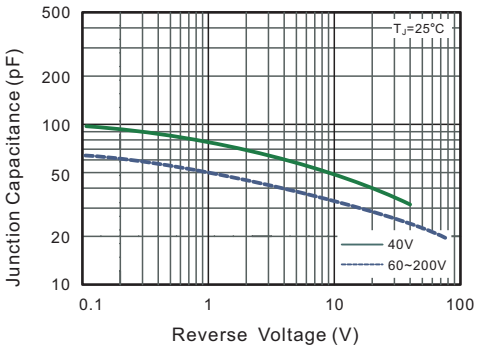


Fig.5 Maximum Non-Repetitive Peak Forward Surage Current

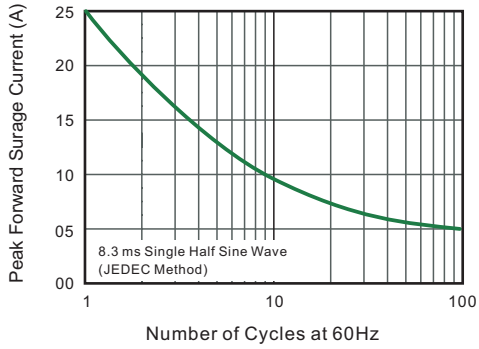
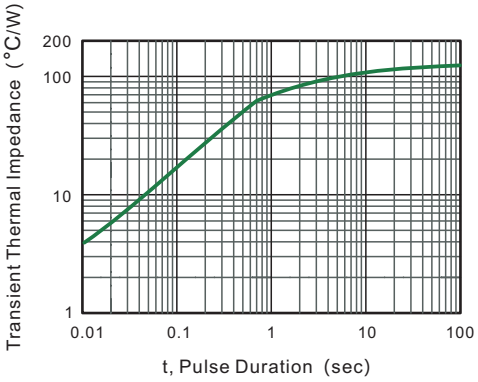
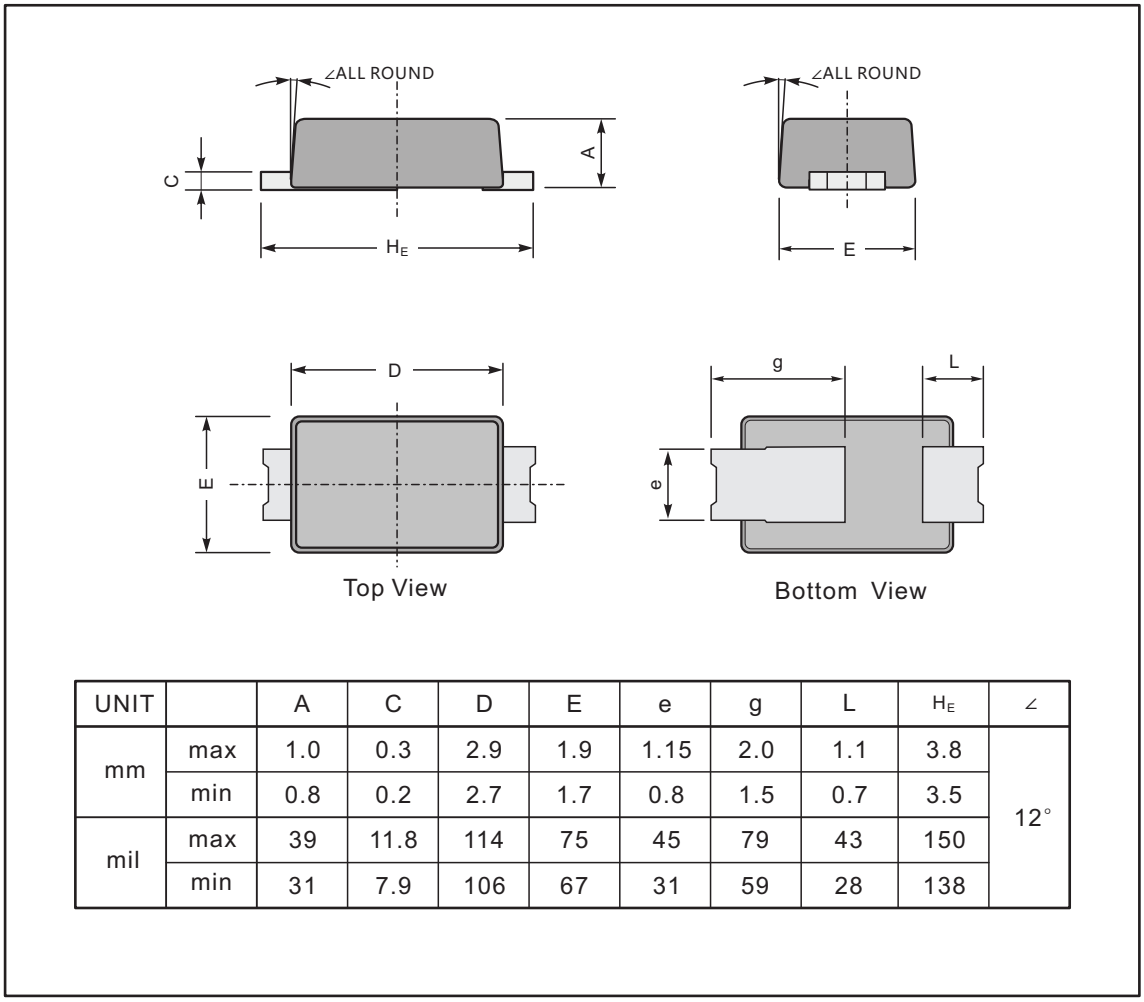


Fig.6- Typical Transient Thermal Impedance



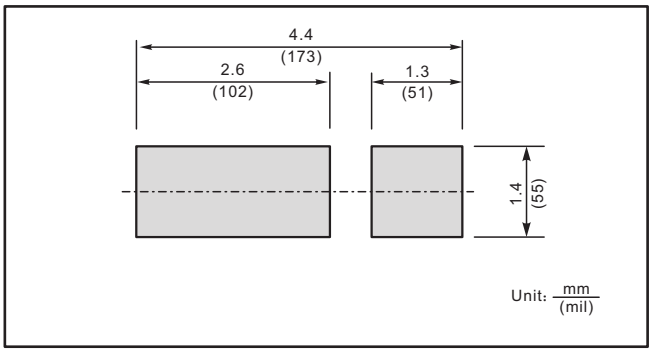
PACKAGE OUTLINE

Plastic surface mounted package; 2 leads SOD-123HE



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



Marking

Type number	Marking code
SS14HE	SK14
SS16HE	SK16
SS110HE	SK110
SS115HE	SK115
SS120HE	SK120

Important Notice and Disclaimer

Jingdao Microelectronics reserves the right to make changes to this document and its products and specifications at any time without notice.
Customers should obtain and confirm the latest product information and specifications before final design, purchase or use.

Jingdao Microelectronics makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose, not does Jingdao Microelectronics assume any liability for application assistance or customer product design.

Jingdao Microelectronics does not warrant or accept any liability with products which are purchased or used for any unintended or unauthorized application.

No license is granted by implication or otherwise under any intellectual property rights of Jingdao Microelectronics.

Jingdao Microelectronics products are not authorized for use as critical components in life support devices or systems without express written approval of Jingdao Microelectronics.