

SURFACE MOUNT SCHOTTKY RECTIFIERS

Reverse Voltage - 40V

Forward Current - 2.0 A

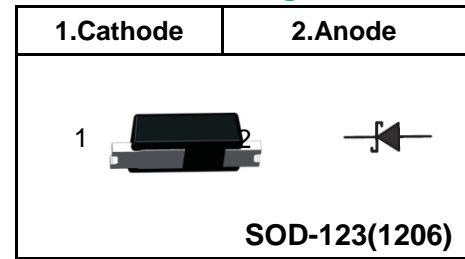
FEATURES

- ◆ High current rectifier Schottky diodes
- ◆ For detection and step-up-conversion
- ◆ Low voltage, low inductance
- ◆ Lead free in comply with EU RoHS 2011/65/EU directives

MECHANICAL DATA

- ◆ Case: SOD-123(1206)
- ◆ Terminals: Solderable per MIL-STD-750, Method 2026
- ◆ Approx. Weight: 14mg / 0.0005oz

Pinning



Marking Code

SSU24	U24
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Maximum Ratings (TA = 25 °C unless otherwise noted)

Parameter	Symbols	SSU24	Units
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM}	40	V
RMS Reverse Voltage	V_{RMS}	28	V
Maximum DC Blocking Voltage	V_{DC}	40	V
Forward Current	$I_{F(AV)}$	2.0	A
Non-Repetitive Peak Forward Surge Current 8.3ms single half sine-waves superimposed on rated load (JEDEC Method)	I_{FSM}	35	A
Typical Thermal Resistance	R_{thJA}	80	°C/W
Operating junction temperature range	T_j	150	°C
Storage temperature range	T_{stg}	- 55 to +150	°C

Electrical Characteristics (TA = 25 °C unless otherwise noted)

Parameter	Test Conditions	Symbols	SSU24	Units
Reverse Breakdown Voltage	Ta=25°C, IR=0.3mA	$V_{(BR)R}$	40	V
Maximum Forward Voltage	At IF=0.01A At IF=0.1A At IF=1A At IF=2A	V_F	0.23(typ) 0.28(typ) 0.42(typ) 0.45(typ)	V
Peak Reverse Current	VR=40V, TA=25°C	I_R	0.3	mA
Typical Junction Capacitance	VR=4V, f=1.0MHZ	C_T	300	pF

Note: Mounted on glass epoxy PC board with 3.81x3.81 cm copper pad.

Fig.1 Forward Current Derating Curve

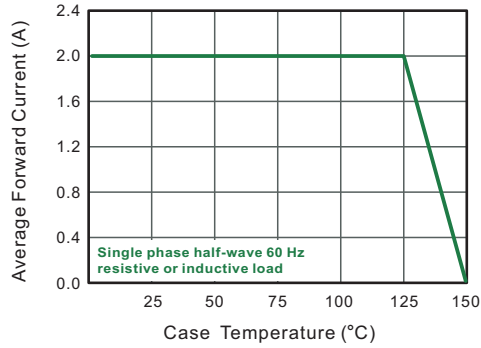


Fig.2 Typical Reverse Characteristics

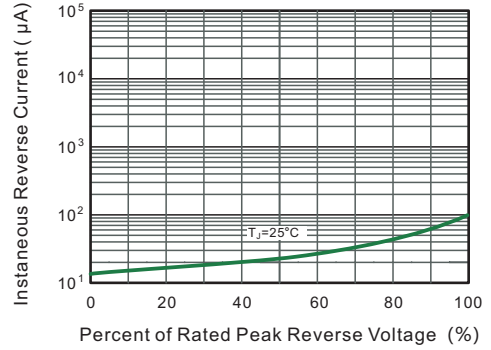


Fig.3 Typical Junction Capacitance

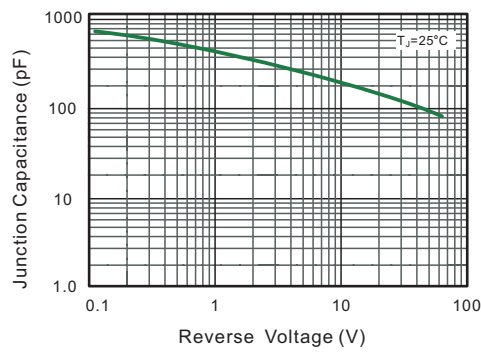


Fig.4 Typical Forward Characteristic

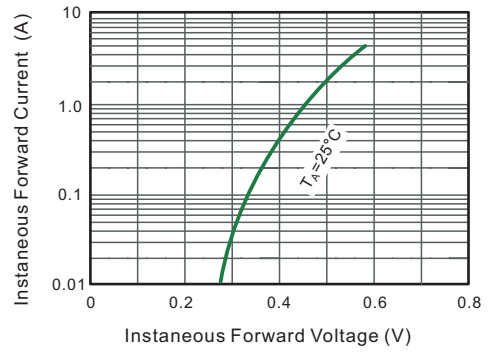


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

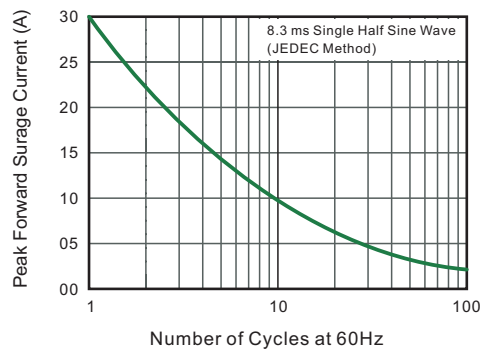
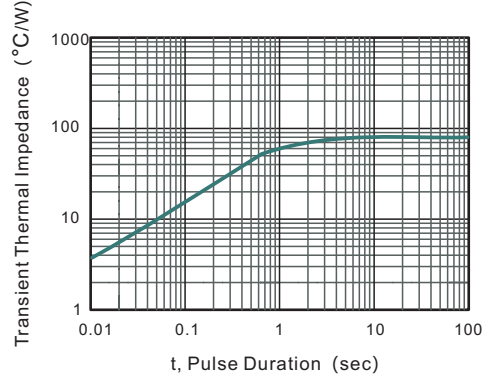
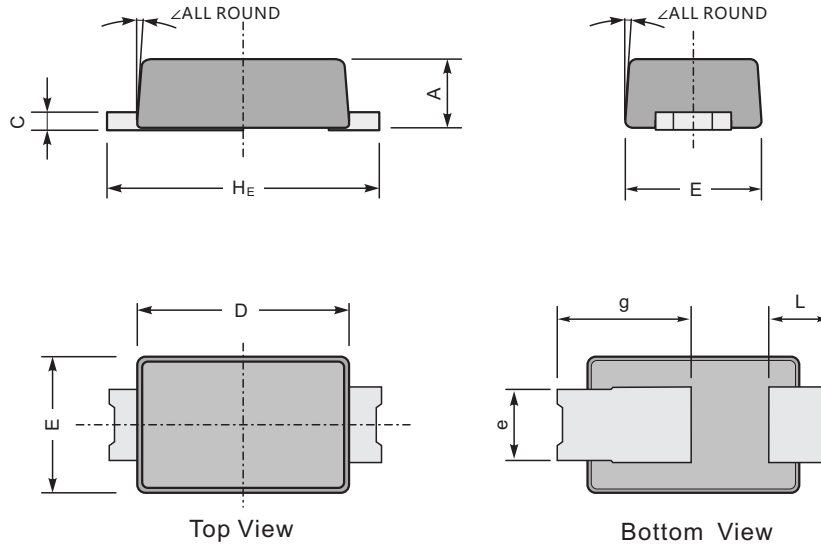


Fig.6- Typical Transient Thermal Impedance



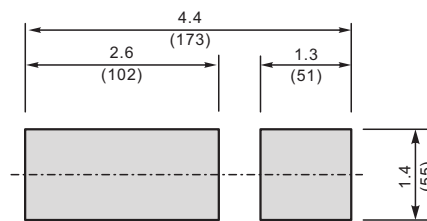
Package Outline SOD-123(1206)

Plastic surface mounted package; 2 leads



UNIT		A	C	D	E	e	g	L	H _E	\angle
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



Unit: $\frac{\text{mm}}{\text{mil}}$

Summary of Packing Options

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