

SURFACE MOUNTSCHOTTKY RECTIFIERS

Reverse Voltage - 40V

Forward Current - 2.0 A

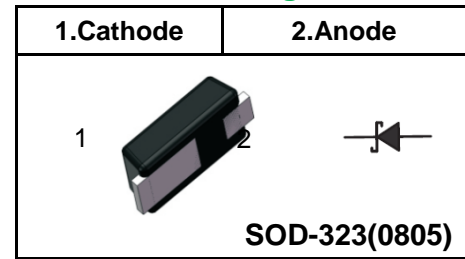
FEATURES

- ◆High current rectifier Schottky diodes
- ◆Low voltage,low inductance
- ◆For detection and step-up-conversion
- ◆LeadfreeincomplywithEUroHS2011/65/EUdirectives

MECHANICAL DATA

- ◆Case:SOD-323(0805)
- ◆Terminals: Solderable per MIL-STD-750, Method2026
- ◆Approx. Weight: 5.4mg /0.00019oz

Pinning



Marking Code

SSU24S	24
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Maximum Ratings (TA = 25 °C unless otherwise noted)

Parameter	Symbols	SSU24S	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	40	V
Maximum RMS voltage	V_{RMS}	28	V
Maximum DC Blocking Voltage	V_{DC}	40	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	2.0	A
Peak Forward Surge Current, 8.3ms Single Half Sine-waveSuperimposed On Rated Load	I_{FSM}	30	A
Thermal Resistance, Junction to Ambient	R_{thJA}	95	°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	SSU24S	Units
Minimum Breakdown voltage	$T_a = 25^{\circ}C, I_R=0.3mA$	V_{BR}	40	V
Maximum forward voltage	$I_F=0.01A, T_a=25^{\circ}C$ $I_F=0.1A, T_a=25^{\circ}C$ $I_F=1A, T_a=25^{\circ}C$ $I_F=2A, T_a=25^{\circ}C$	V_F	0.22(typ) 0.30(typ) 0.042(typ) 0.48(typ)	V
Peak Reverse Current	$T_a = 25^{\circ}C$	I_R	0.3	mA
Typical junction capacitance	$V_R=4.0 V, 1 MHz$	C_t	300	pF

Fig.1 Forward Current Derating Curve

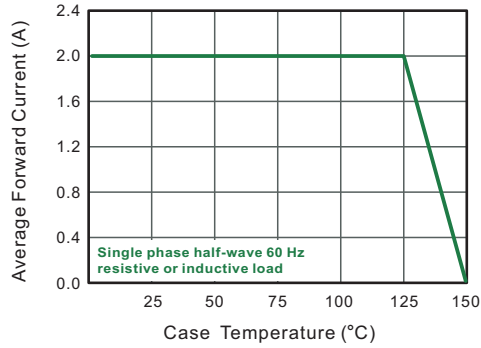


Fig.2 Typical Reverse Characteristics

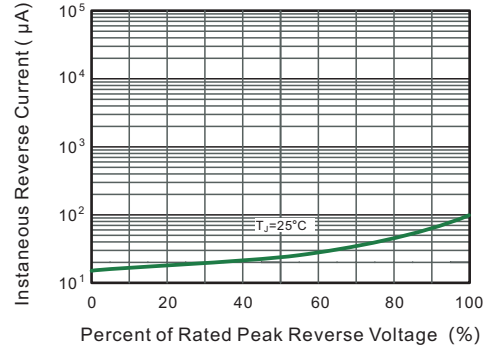


Fig.3 Typical Junction Capacitance

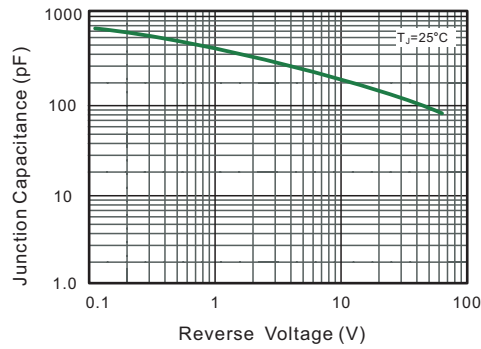


Fig.4 Typical Forward Characteristic

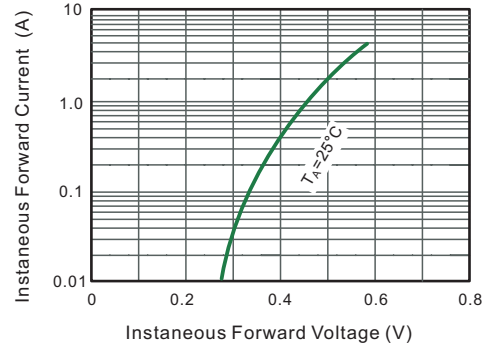


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

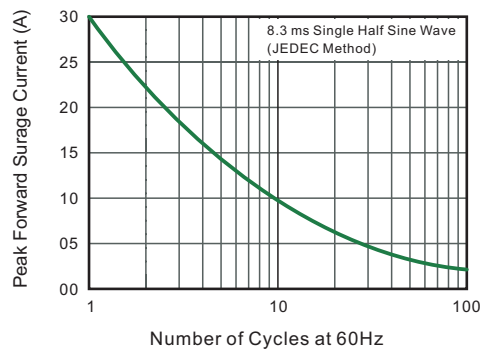
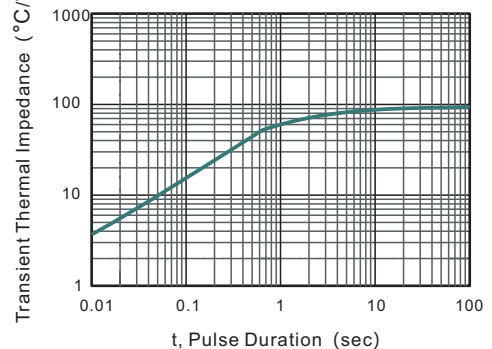
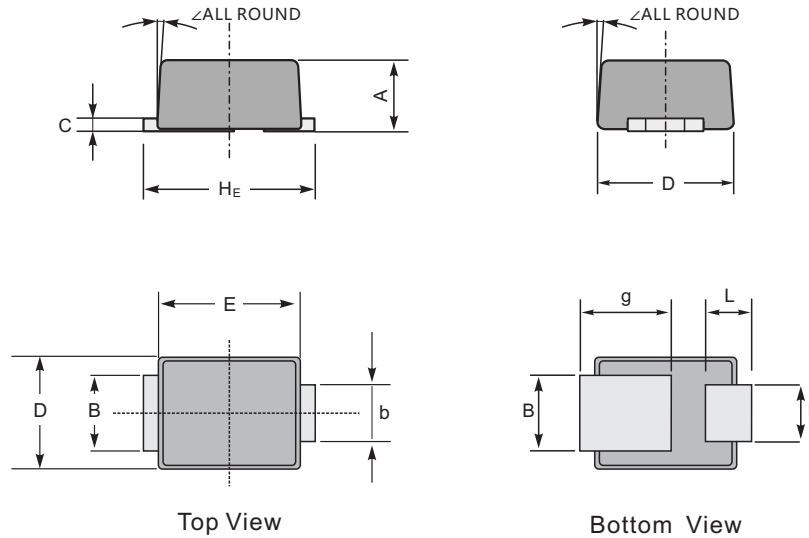


Fig.6- Typical Transient Thermal Impedance



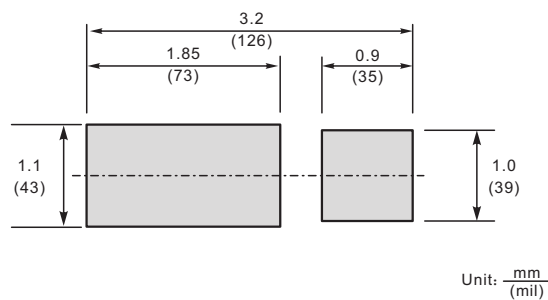
Package Outline SOD-323(0805)

Plastic surface mounted package; 2 leads



UNIT		A	b	B	C	D	E	H _E	g	L	\angle
mm	max	0.77	0.75	0.95	0.20	1.45	2.3	2.7	1.55	0.8	12°
	min	0.57	0.45	0.65	0.10	1.25	2.1	2.3	1.1	0.4	
mil	max	30	30	37	8	57	91	106	61	31	
	min	22	18	26	4	49	83	91	43	16	

The recommended mounting pad size



Summary of Packing Options

Package	Packing Description	Packing Quantity	Industry Standard
SOD-323(0805)	Tape/Reel, 7" reel	3000	EIA-481-1