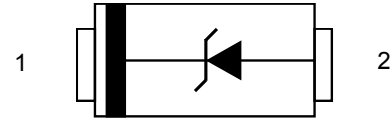


Description

Surface Mount Schottky Barrier Rectifier Rectifiers

Reverse Voltage 20 to 200 V

Forward Current 1.0 A



SOD123-FL

Maximum Ratings and Electrical characteristics per line@25°C (unless otherwise specified)
 Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derate by 20 %

Parameter	Symbols	PDS 12W	PDS 14W	PDS 16W	PDS 18W	PDS 110W	PDS 112W	PDS 115W	PDS 120W	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	20	40	60	80	100	120	150	200	V
Maximum RMS voltage	V_{RMS}	14	28	42	56	80	100	105	140	V
Maximum DC Blocking Voltage	V_{DC}	20	40	60	80	100	120	150	200	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	1								A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	40				30				A
Maximum Instantaneous Forward Voltage at	V_F	0.55		0.70		0.85		0.90		V
Maximum DC Reverse Current $T_a = 25\text{ }^\circ\text{C}$ at Rated DC Blocking Voltage $T_a = 125\text{ }^\circ\text{C}$	I_R	0.3 10				0.2 5		0.1 2		mA
Typical Junction Capacitance ¹⁾	C_j	110		80						pF
Typical Thermal Resistance ²⁾	$R_{\theta JA}$	115								$^\circ\text{C/W}$
Operating and Storage Temperature Range	T_j, T_{stg}	-55~+150								$^\circ\text{C}$

1) Measured at 1 MHz and applied reverse voltage of 4 V D.C

2) Thermal resistance from junction to ambient at 0.375" (9.5 mm) lead length, P.C.B. mounted

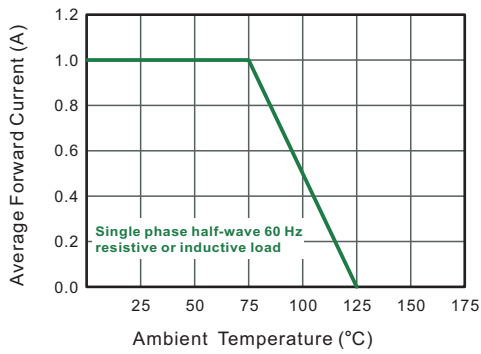


Fig.1 Forward Current Derating Curve

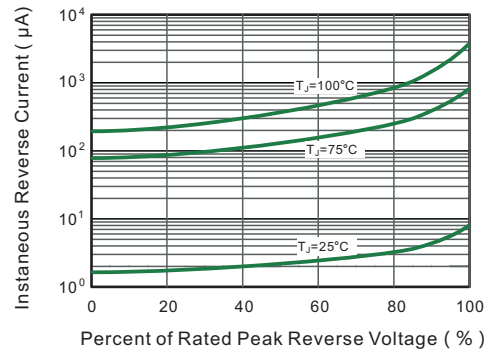


Fig.2 Typical Reverse Characteristics

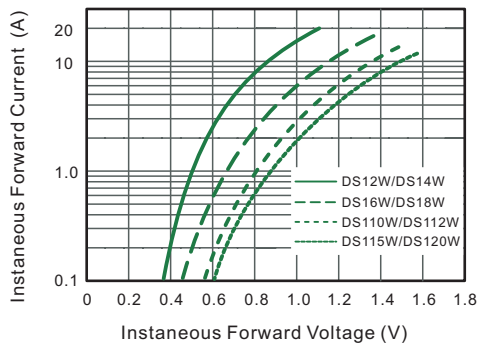


Fig.3 Typical Forward Characteristic

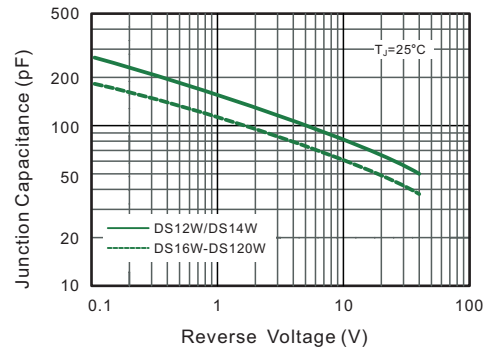


Fig.4 Typical Junction Capacitance

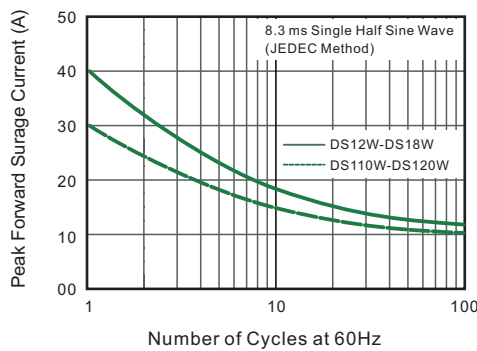


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

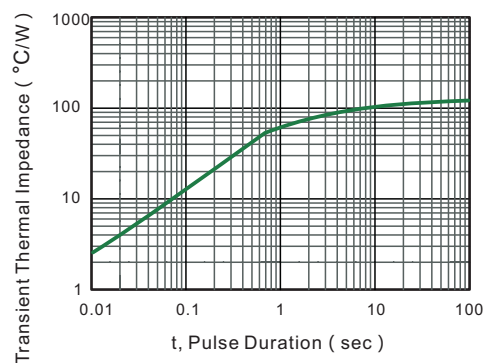
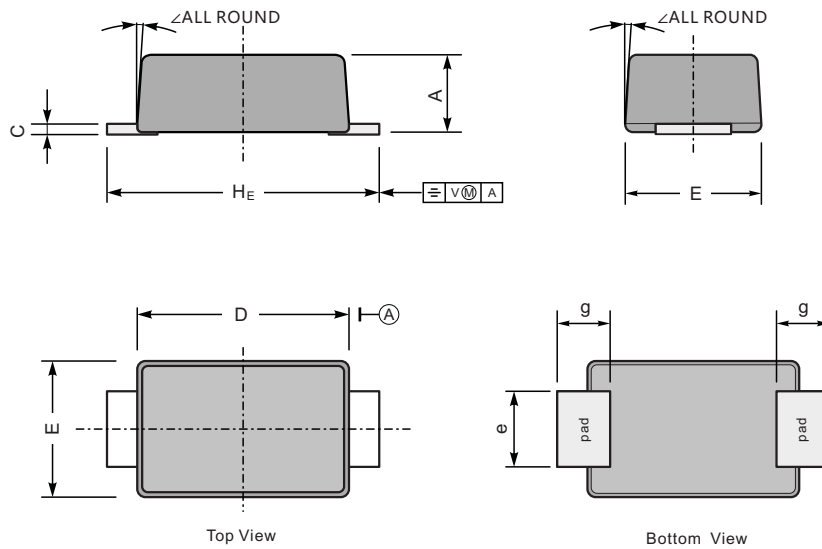


Fig.6- Typical Transient Thermal Impedance

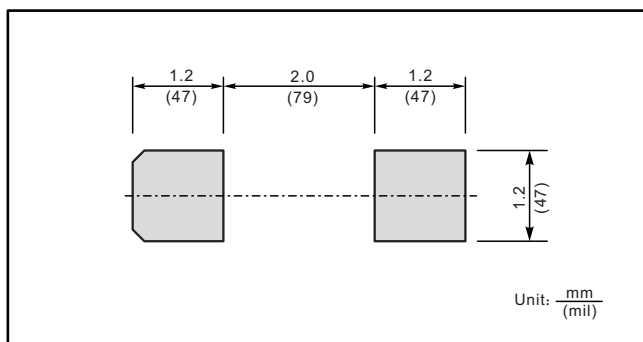
Product dimension (SOD-123FL)

Plastic surface mounted package; 2 leads

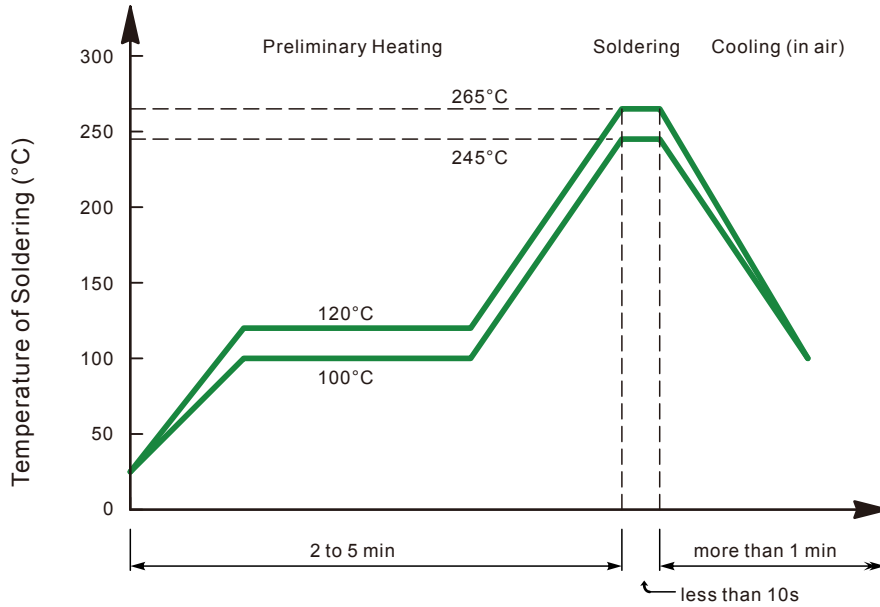


UNIT		A	C	D	E	e	g	H _E	\angle
mm	max	1.1	0.20	2.9	1.9	1.1	0.9	3.8	7°
	min	0.9	0.12	2.6	1.7	0.8	0.7	3.5	
mil	max	43	7.9	114	75	43	35	150	
	min	35	4.7	102	67	31	28	138	

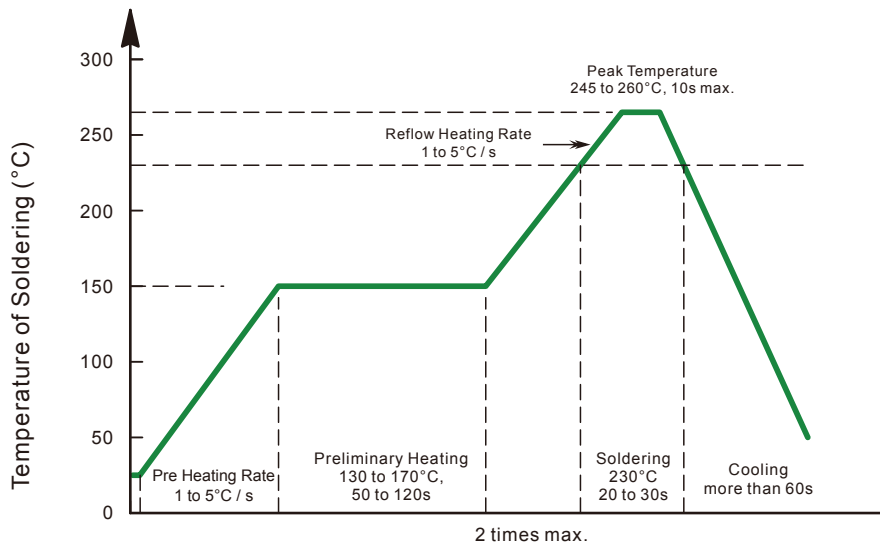
The recommended mounting pad size



• Recommended condition of flow soldering



• Recommended condition of reflow soldering




Recommended peak temperature is over 245 °C. If peak temperature is below 245 °C, you may adjust the following parameters; time length of peak temperature (longer), time length of soldering (longer), thickness of solder paste (thicker)

• Condition of hand soldering

Temperature: 370°C
 Time: 3s max.
 Times: one time

• Remark:


Lead free solder paste (96.5Sn/3.0Ag/0.5Cu)

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