DESCRIPTION

The 1N5817W~1N5819W are available in SOD-123FL package

ORDERING INFORMATION

Package Type	Part Number
SOD-123FL	1N5817W
	1N5818W
	1N5819W
Note	SPQ: 2,500pcs/Reel
AiT provides all RoHS Compliant Products	

FEATURES

- Metal silicon junction, majority carrier conduction
- Guarding for overvoltage protection
- Low power loss, high efficiency
- High current capability
- low forward voltage drop
- High surge capability
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications
- Available in SOD-123FL package

PIN DESCRIPTION

ABSOLUTE MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Parameter		Symbol	1N5817W	1N5818W	1N5819W	Unit
Maximum Repetitive Peak Reverse Voltage		V_{RRM}	20	30	40	V
Maximum RMS Voltage		V_{RMS}	14	21	28	V
Maximum DC Blocking Voltage		V_{DC}	20	30	40	V
Maximum Average Forward Rectified Current 0.375" (9.5 mm) Lead Length at T_L = 90°C		$I_{F(AV)}$	1.0			A
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed On Rated Load (JEDEC method) at T_L = 70°C		I_{FSM}	25			A
Maximum Instantaneous Forward Voltage	at I_F=1A at I_F=3.1A	V_F	0.45 0.75	0.55 0.875	0.6 0.9	V
Maximum Instantaneous Reverse Current at Rated DC Reverse Voltage	T_A=25°C T_A=100°C	I_R	1 10			mA
Typical Junction Capacitance		C_J	110			pF
Typical Thermal Resistance		$R_{\theta JA}$ $R_{\theta JL}$	50 15			°C/W
Storage and Operating Junction Temperature Range		T_J, T_{STG}	-55 ~+125			°C

TYPICAL CHARACTERISTICS

Figure. 1 Forward Current Derating Curve

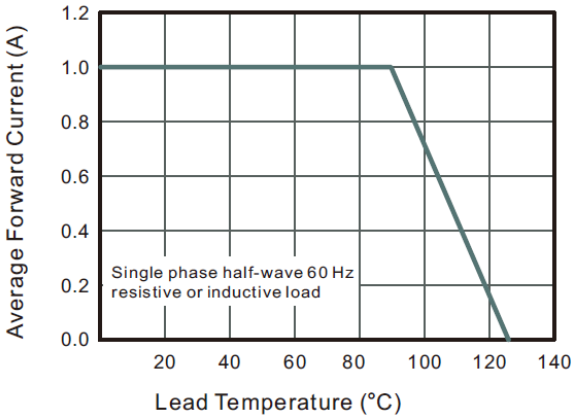


Figure. 2 Typical Reverse Characteristics

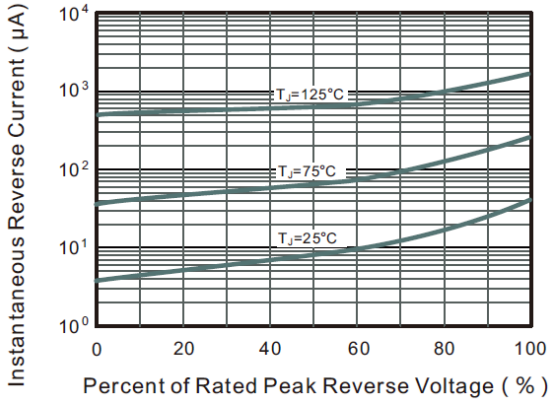


Figure. 3 Typical Forward Characteristic

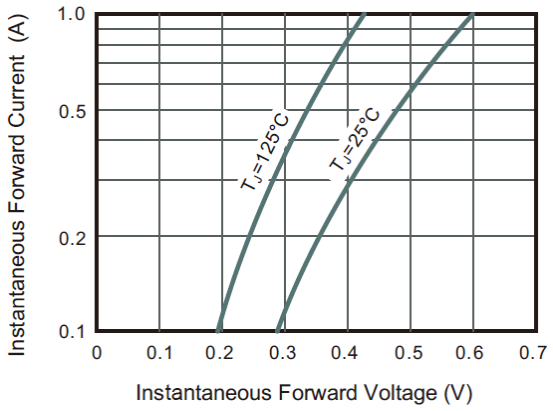


Figure. 4 Typical Junction Capacitance

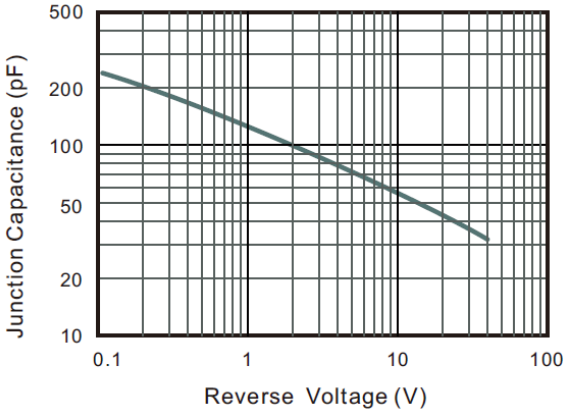


Figure. 5 Maximum Non-Repetitive Peak Forward Surge Current

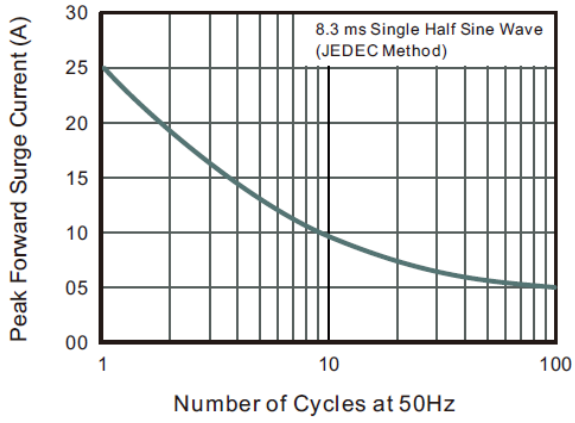
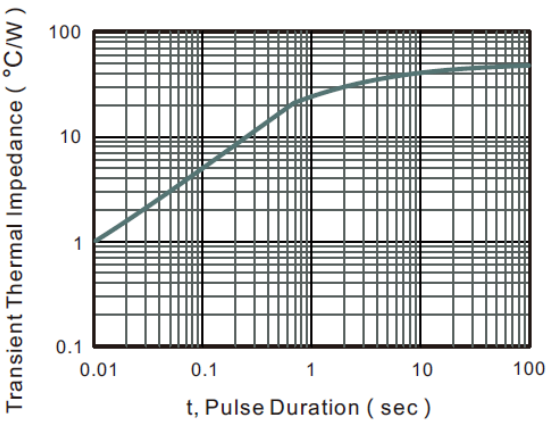


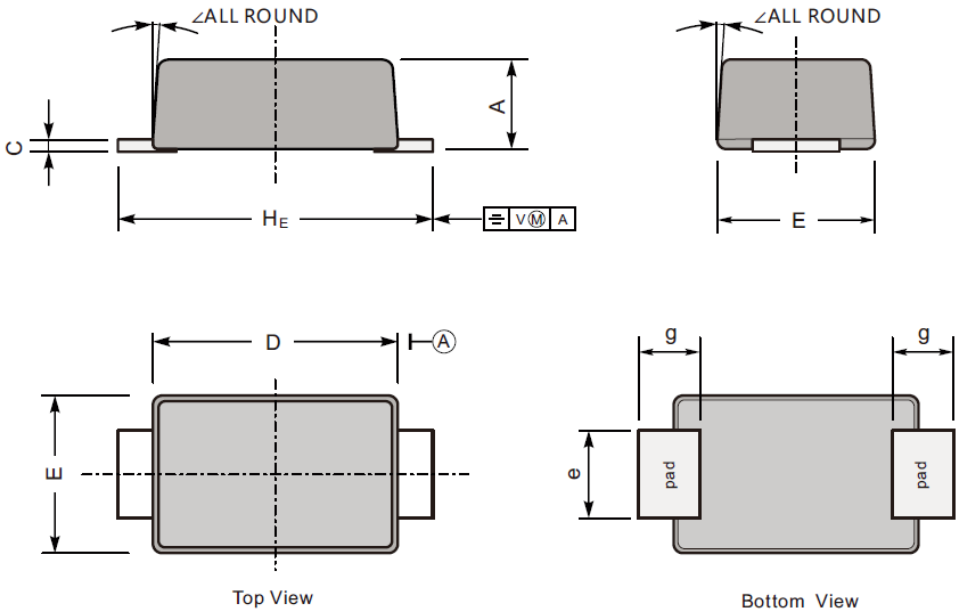
Figure. 6 Typical Transient Thermal Impedance



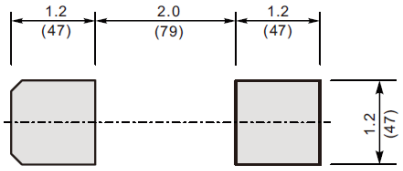
PACKAGE INFORMATION

Dimension in SOD-123FL (Unit: mm)

Plastic surface mounted package; 2 leads



The recommended mounting pad size



Unit: mm (mil)

UNIT		A	C	D	E	e	g	H_E	∠
mm	Max	1.1	0.20	2.9	1.9	1.1	0.9	3.8	0.3
	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	12
	Min	35	4.7	102	67	31	28	138	

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