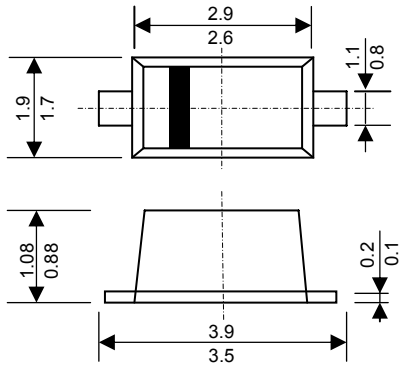
1N5817W THRU 1N5819W

Reverse Voltage - 20 to 40 V
Forward Current - 1 A

SURFACE MOUNT SCHOTTKY BARRIER DIODE

SOD-123FL



Dimensions in millimeters

Absolute Maximum Ratings and Characteristics

Ratings at 25℃ ambient temperature unless otherwise specified, single phase, half wave, resistive or inductive load. For capacitive load, derate by 20%

Parameter	Symbols	1N5817W	1N5818W	1N5819W	Units
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	$I_{F(AV)}$	1			A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load(JEDEC methode)	I_{FSM}	25			A
Maximum Instantaneous Forward Voltage at I_F = 1 A at I_F = 3 A	V_F	0.45 0.75	0.55 0.875	0.6 0.9	V
Maximum Instantaneous Reverse Current at Rated DC Blocking Voltage [1] T_A = 25℃ T_A = 100℃	I_R	0.5 10			mA
Typical Junction Capacitance [2]	C_J	110			pF
Typical Thermal Resistance, Junction to Ambient [3]	$R_{\theta JA}$	75			℃/W
Operating Junction Temperature Range	T_j	- 55 to + 125			℃
Storage Temperature Range	T_{stg}	- 55 to + 150			℃

[1] Pulse test: 300 μs pulse width, 1% duty cycle

[2] Mearsured at 1 MHz and reverse voltage of 4 V

[3] Thermal resistance junction to ambient 0.24" X 0.24"(6 X 6 mm) copper pads to each terminals

FIG.1-FORWARD CURRENT DERATING CURVE

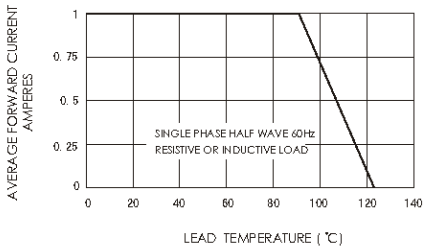


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

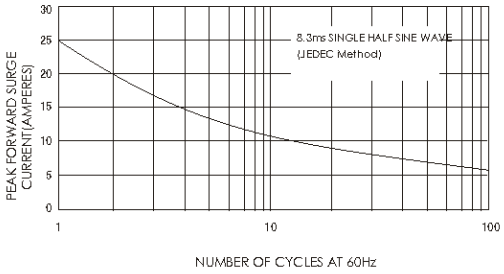


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

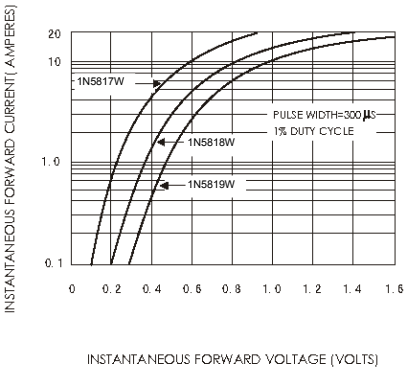


FIG.4-TYPICAL REVERSE CHARACTERISTICS

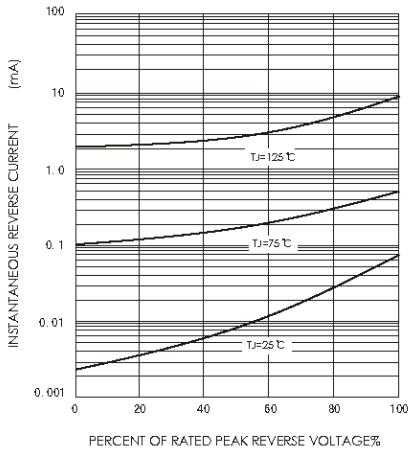
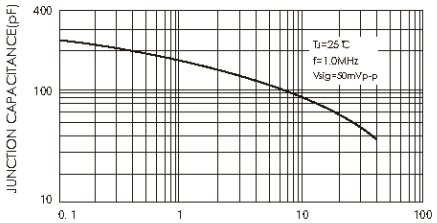



FIG.5-TYPICAL JUNCTION CAPACITANCE