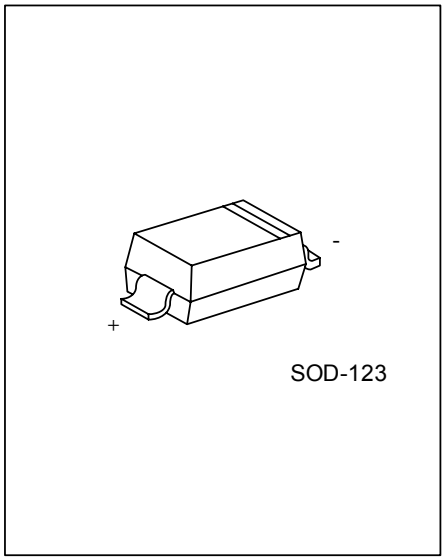
1N5819

DIODE

SCHOTTKY BARRIER DIODE



*Pb-free plating product number: 1N5819L

■ FEATURES

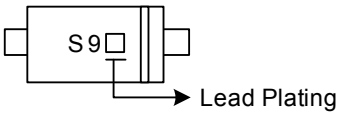
* Schottky barrier chip
* Low power loss, high efficiency.
* Low forward voltage drop.
* High surge current capability.
* For use in low voltage, high frequency inverters, free wheeling diode, and polarity protection applications.

■ ORDERING INFORMATION

Order Number		Package	Packing
Normal	Lead Free Plating		
1N5819-CA2-R	1N5819L-CA2-R	SOD-123	Tape Reel

1N5819L-CA2-R (1)Packing Type (2)Package Type (3)Lead Plating	(1) R: Tape Reel (2) CA2: SOD-123 (3) L: Lead Free Plating Blank: Pb/Sn

■ MARKING



■ ABSOLUTE MAXIMUM RATINGS (Single Diode @T_A=25°C)

PARAMETER	SYMBOL	RATINGS	UNIT
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	40	V
Maximum non-repetitive Peak Reverse Voltage	V_{RM}	40	V
Maximum DC Blocking Voltage	V_R	40	V
Working Peak Reverse Voltage	V_{RWM}	40	V
Maximum RMS Reverse Voltage	$V_{R(RMS)}$	28	V
Repetitive Peak Forward Current	I_{FRM}	625	mA
Non-repetitive Peak Forward Surge Current 8.3ms Single Half-Sine-Wave	I_{FSM}	25	A
Average Forward Rectified Output Current	I_{OUT}	1	A
Power Dissipation	P_D	250	mW
Storage Temperature Range	T_{STG}	-65~+150	°C

Note: Absolute maximum ratings are those values beyond which the device could be permanently damaged. Absolute maximum ratings are stress ratings only and functional device operation is not implied.

■ THERMAL DATA

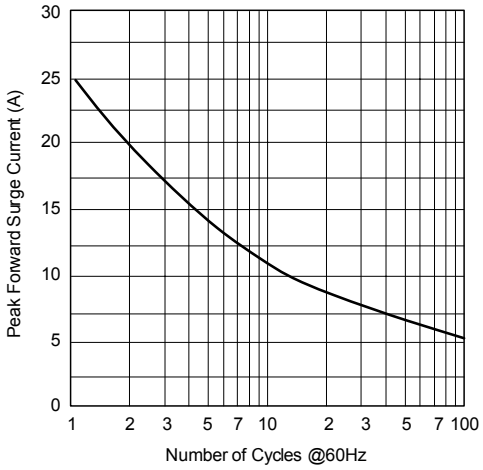
PARAMETER	SYMBOL	RATINGS	UNIT
Thermal Ambient Resistance Junction to Ambient	θ_{JA}	500	°C/W

■ ELECTRICAL CHARACTERISTICS (T_A=25°C, unless otherwise specified)

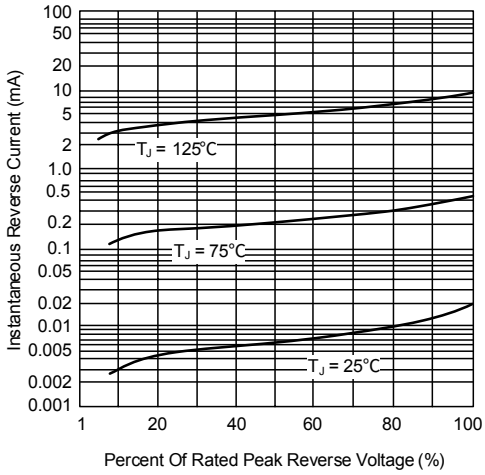
PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Forward Voltage	V_F	I_F=1A			0.6	V
		I_F=3A			0.9	V
Reverse Breakdown Voltage	BV_R	I_R= 1mA	40			V
Reverse Leakage Current	I_R	V_R=40V			1	mA
Diode Capacitance	C_D	V_R=4V, f=1MHz			120	pF

■ TYPICAL CHARACTERISTICS

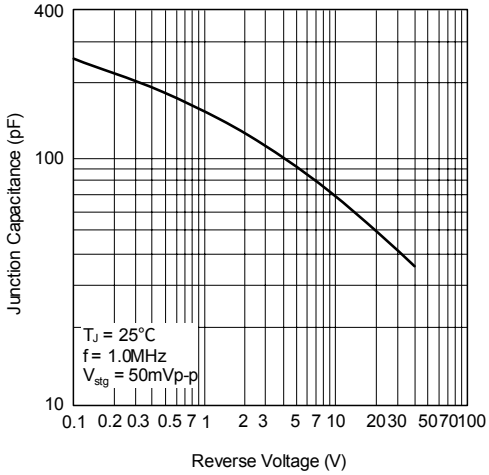
Maximum Non-Repetitive Peak Forward Surge Current



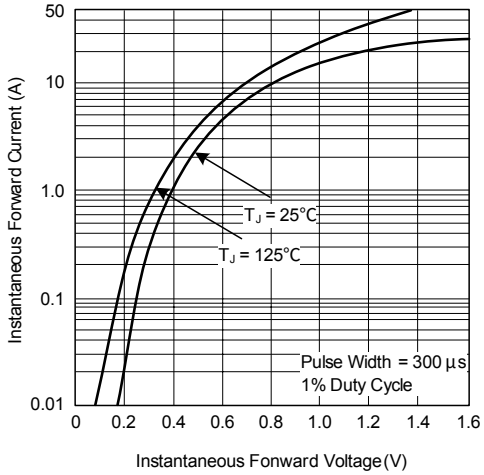
Typical Reverse Characteristics



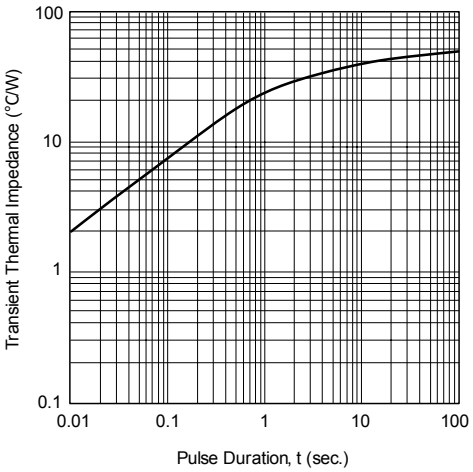
Junction Capacitance



Instantaneous Forward Characteristics



Transient Thermal Impedance



Forward Current Derating Curve