Schottky Barrier Recitifier

Lumimax Optoelectronic Tech.

1N5817 ~ 1N5819

FEATURES

- Overvoltage protection
- Low forward voltage
- Low power loss, high efficiency
- High surge current capability
- High temperature soldering guaranteed 250°C/10 seconds, 0.375" (9.5mm) lead length
- RoHS and REACH Compliance

RoHS COMPLIANT

DO204AL
(DO-41)

MECHANICAL DATA

Case	DO-204AL(DO-41), transfer molded plastic
Epoxy	UL94V – 0 rate flame retardant
Lead	Plated axial leads, solderable per MIL-STD-202E, Method 208C
Polarity	Color band denotes cathode end
Mounting position	Any
Weight	0.012 Ounce, 0.33 gram

MAXIMUM RATINGS ($T_{Ambient}$=25°C unless noted otherwise)

Parameter *[Conditions]*	**Symbol**	**1N5817**	**1N5818**	**1N5819**	**Unit**
Max Recurrent Peak Reverse Voltage	V_{RRM}	20	30	40	V
Max RMS Voltage	V_{RMS}	14	21	28	V
Max DC Blocking Voltage	V_{DC}	20	30	40	V
Max Average Forward Rectified Current *[.0375" (9.5mm), T_C=90°C (Note 1)]*	$I_{F(AV)}$	1.0			A
Peak Forward Surge Current *[JEDEC method]*	I_{FSM}	25			A
Operating and Storage Temperature Range	T_J,T_{STG}	-55 to +125			°C

ELECTRICAL CHARACTERISTICS ($T_{Ambient}$=25°C unless noted otherwise)

Parameter *[Conditions]*		**Symbol**	**1N5817**	**1N5818**	**1N5819**	**Unit**
Max Instantaneous Forward Voltage	*[1.0A]* *[3.0A]*	V_F	0.450 0.750	0.550 0.875	0.600 0.900	V
Max DC Reverse Current at Rated DC Blocking Voltage	*[T_A=25°C]* *[T_A=100°C]*	I_R	1.0 10			mA
Typical Junction Capacitance *[At 1MHz, reversed voltage of 4V]*		C_J	110			pF
Typical Thermal Resistance *[Note 1]*		$R_{\theta JA}$	50			°C/W

Note : (1) Thermal resistance from junction to ambient with 0.375" (9.5mm) lead length, PCB mounted, with 1.5" x 1.5" (38cm x 38cm) copper pads

TYPICAL CHARACTERISTICS CURVES

FIG. 1 - FORWARD CURRENT DERATING CURVE

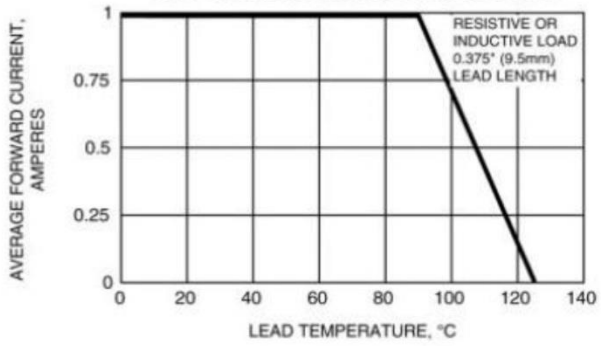


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

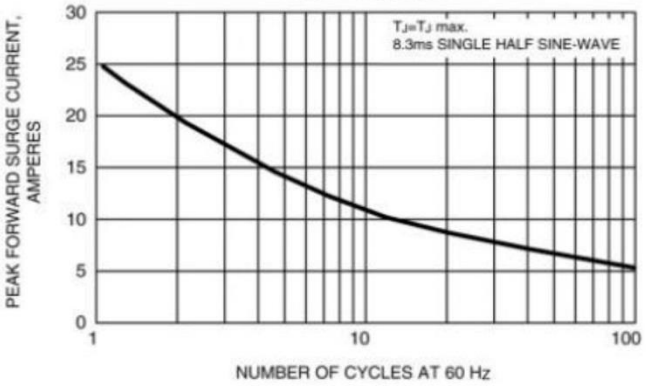


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

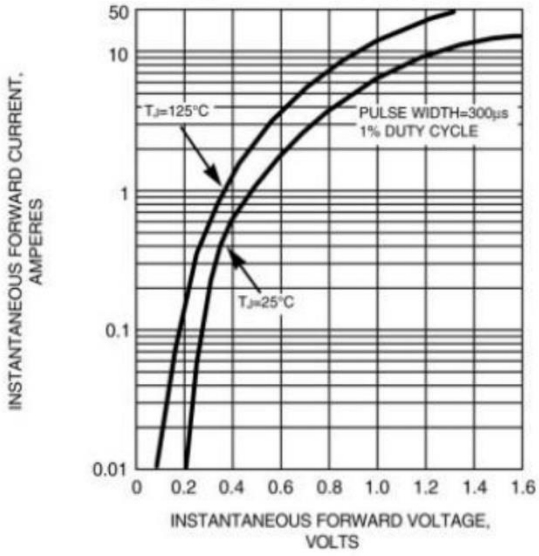


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

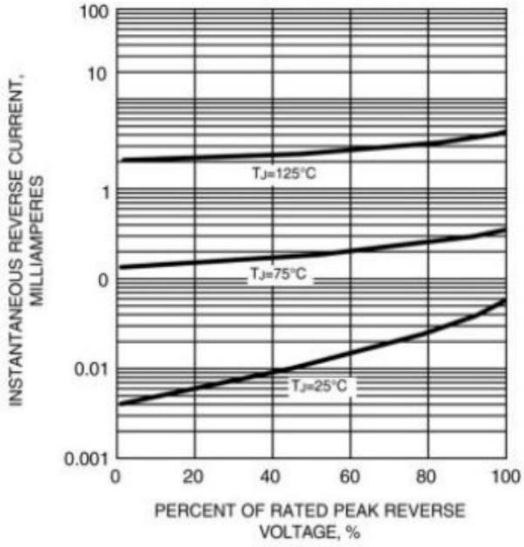


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

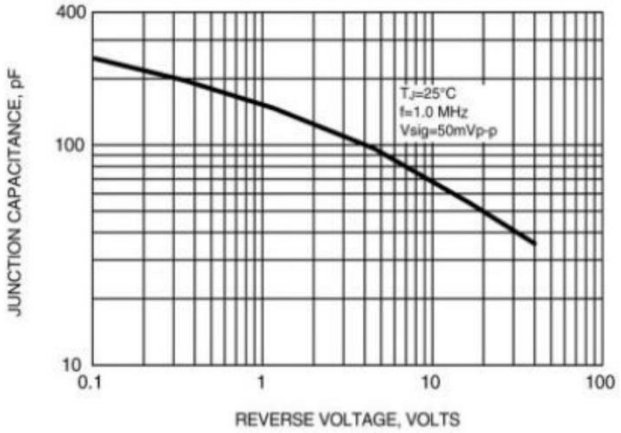
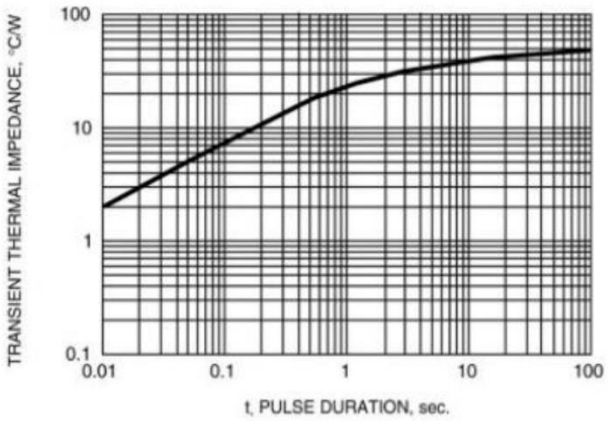
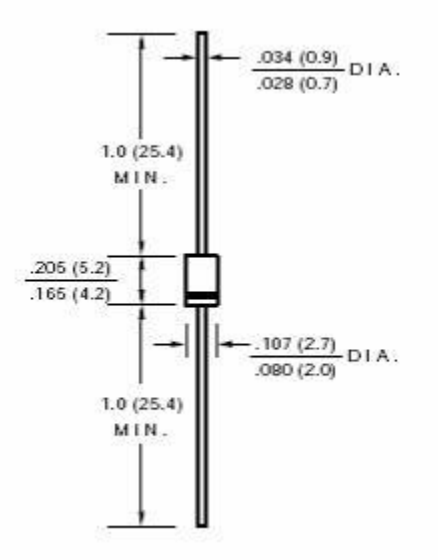


FIG. 6 - TYPICAL TRANSIENT THERMAL IMPEDANCE



DIMENSIONS in inch (mm)



DO204AL
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