

- High surge current capability
- Compliant to RoHS Directive 2011/65/EU and in accordance to WEEE 2002/96/EC
- Halogen-free according to IEC 61249-2-21 definition



MECHANICAL DATA

**Case :** DO-204AL(DO-41)

**DO-204AL(DO-41)**

Molding compound, UL flammability classification rating 94V-0  
 Base P/N with suffix "G" on packing code - halogen-free, RoHS compliant

**Terminal :** Matte tin plated leads, solderable per JESD22-B102  
 Meet JESD 201 class 1A whisker test

**Polarity :** Indicated by cathode band

**Weight :** 0.33 gram (approximately)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T <sub>A</sub> =25°C unless otherwise noted)				
PARAMETER	SYMBOL	1N5817	1N5818	1N5819
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	20	30	
Maximum RMS voltage	V <sub>RMS</sub>	14	21	
Maximum DC blocking voltage	V <sub>DC</sub>	20	30	
Maximum average forward rectified current	I <sub>F(AV)</sub>	1		
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load	I <sub>FSM</sub>	30		
Maximum instantaneous forward voltage (Note 1) @ 1 A	V <sub>F</sub>	0.45	0.55	0.65
Maximum reverse current @ rated VR T <sub>A</sub> =25 °C T <sub>A</sub> =100°C	I <sub>R</sub>	1 10		
Typical Junction Capacitance (Note 2)	C <sub>j</sub>	55		
Voltage Rate of Change (Rated V <sub>R</sub> )	dV/dt	10000		
Typical thermal resistance	R <sub>θJC</sub> R <sub>θJA</sub>	45 100		
Operating junction temperature range	T <sub>J</sub>	- 55 to + 125		
Storage temperature range	T <sub>STG</sub>	- 55 to + 125		

Note 1 : Pulse test with PW=300u sec, 1% duty cycle

Note 2: Measure at 1 MHz and Applied Reverse Voltage of 4.0 V D.C.

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1N581x (Note 1)	R0	Suffix "G"	DO-41	5000 / 13" Reel
	R1		DO-41	5000 / 13" Reel (Reverse)
	B0		DO-41	1000 / Bulk packing

Note 1: "x" defines voltage from 20V (1N5817) to 40V (1N5819)

EXAMPLE

PREFERRED P/N	PART NO.	PACKING CODE	GREEN COMPOUND CODE	DESCR
1N5817 A0	1N5817	A0		
1N5817 A0G	1N5817	A0	G	Green compound

RATINGS AND CHARACTERISTICS CURVES

(TA=25°C unless otherwise noted)

FIG. 1- MAXIMUM FORWARD CURRENT DERATING CURVE

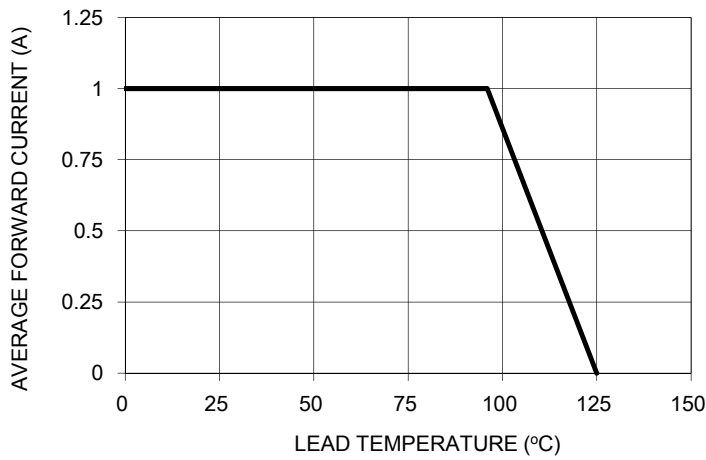


FIG. 2- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

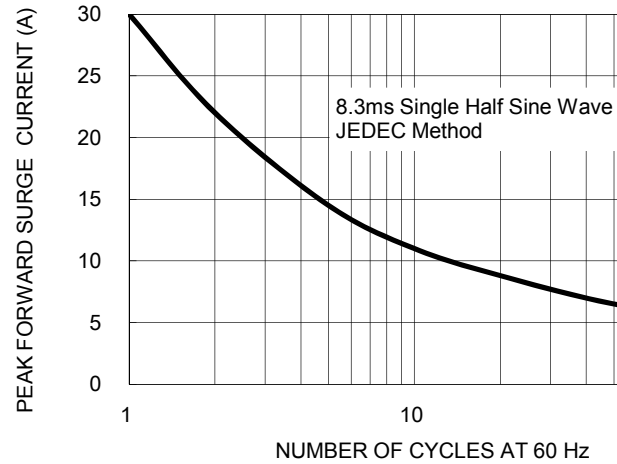


FIG. 3- TYPICAL FORWARD CHARACTERISTICS

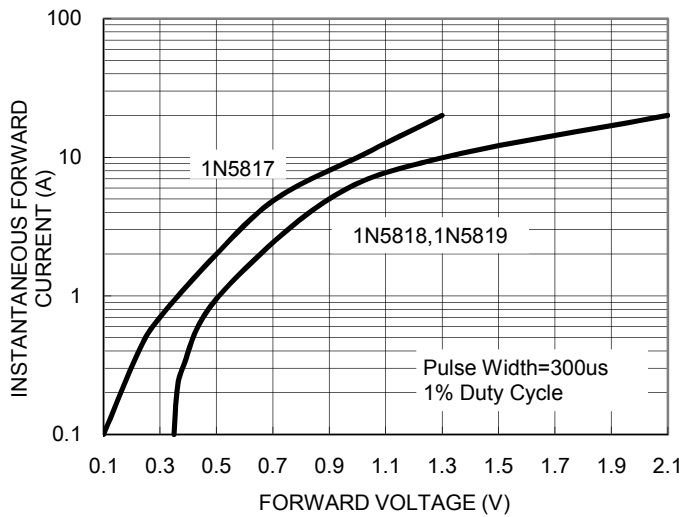
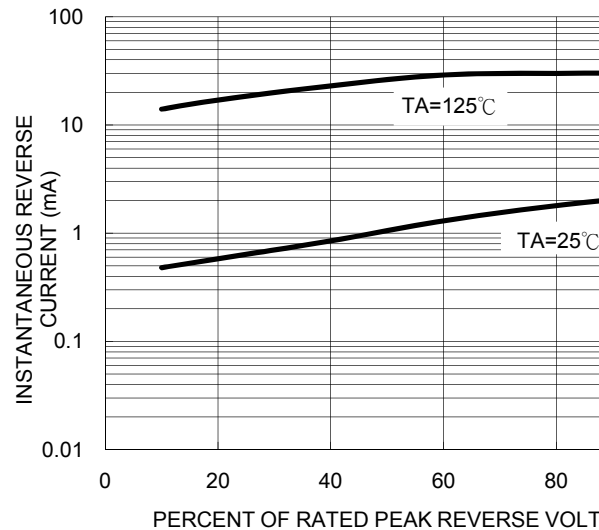
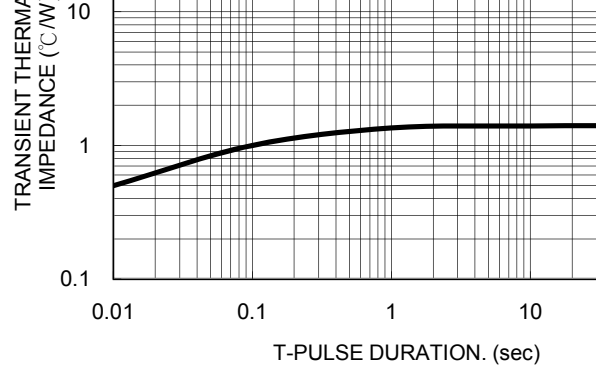
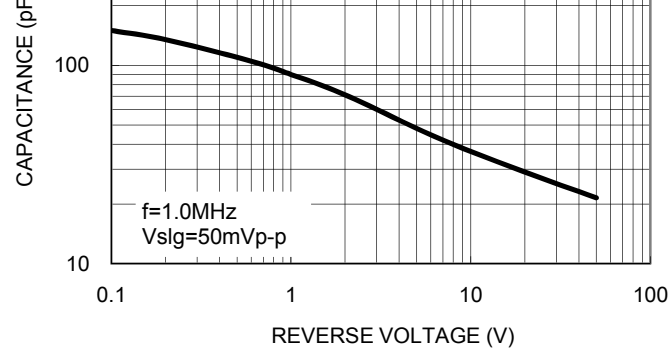
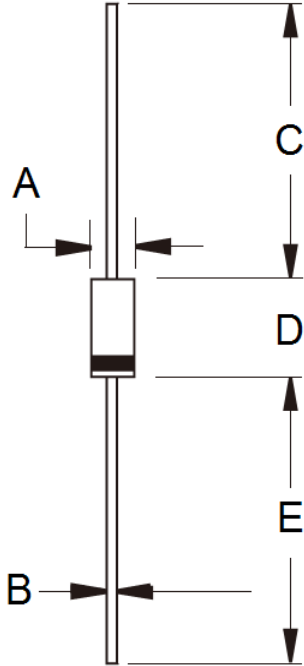


FIG. 4- TYPICAL REVERSE LEAKAGE CHARACTERISTICS





## DIMENSIONS



DIM.	Unit(mm)		Unit(inch)	
	Min	Max	Min	Max
A	2.00	2.70	0.079	0.106
B	0.71	0.86	0.028	0.034
C	25.40	-	1.000	-
D	4.20	5.20	0.165	0.205
E	25.40	-	1.000	-

## MARKING DIAGRAM



- P/N = Specific Device Code
- G = Green Compound
- YWW = Date Code
- F = Factory Code