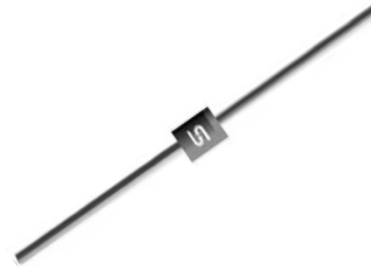


Schottky Barrier Rectifier

FEATURES

- Low forward voltage drop
- Guardring for overvoltage protection
- 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)

Molding compound, UL flammability classification rating 94V-0

Base P/N with suffix "G" on packing code - green compound (halogen-free)

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)

DO-204AL (DO-41)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T _A =25°C unless otherwise noted)					
PARAMETER	SYMBOL	1N5817	1N5818	1N5819	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	I _{F(AV)}	1			A
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load	I _{FSM}	30			A
Maximum instantaneous forward voltage (Note 1) @ 1 A	V _F	0.45	0.55	0.60	V
Maximum reverse current @ rated VR T _J =25 °C T _J =100°C	I _R	1 10			mA
Typical junction capacitance (Note 2)	C _j	55			pF
Voltage rate of change (Rated V _R)	dV/dt	10000			V/μs
Typical thermal resistance	R _{θJC} R _{θJA}	45 100			°C/W
Operating junction temperature range	T _J	- 55 to +125			°C
Storage temperature range	T _{STG}	- 55 to +125			°C

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

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

ORDERING INFORMATION				
PART NO.	PACKING CODE	GREEN COMPOUND CODE	PACKAGE	PACKING
1N581x (Note 1)	A0	Suffix "G"	DO-41	3,000 / AMMO box
	R0		DO-41	5,000 / 13" Reel
	R1		DO-41	5,000 / 13" Reel (Reverse)
	B0		DO-41	1,000 / Bulk packing

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

EXAMPLE				
PREFERRED P/N	PART NO.	PACKING CODE	GREEN COMPOUND CODE	DESCRIPTION
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

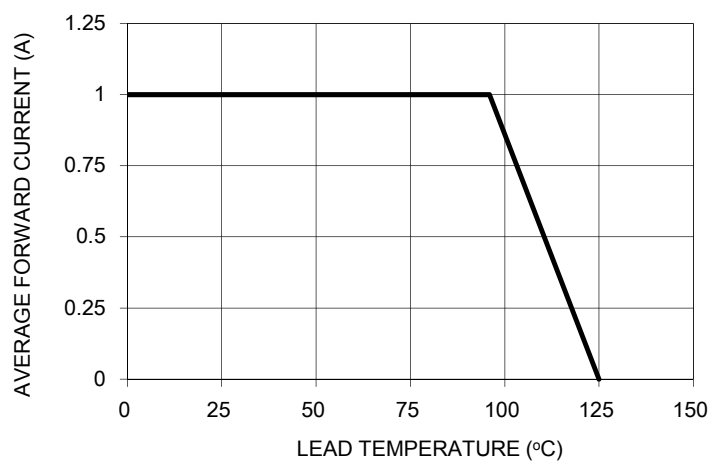


FIG. 2- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

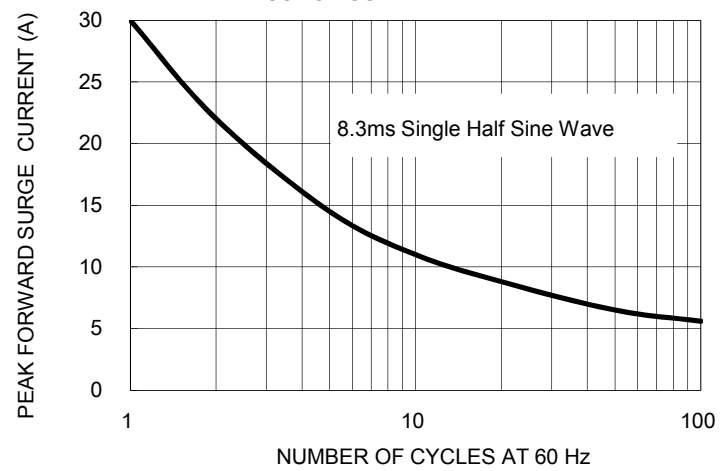


FIG. 3- TYPICAL FORWARD CHARACTERISTICS

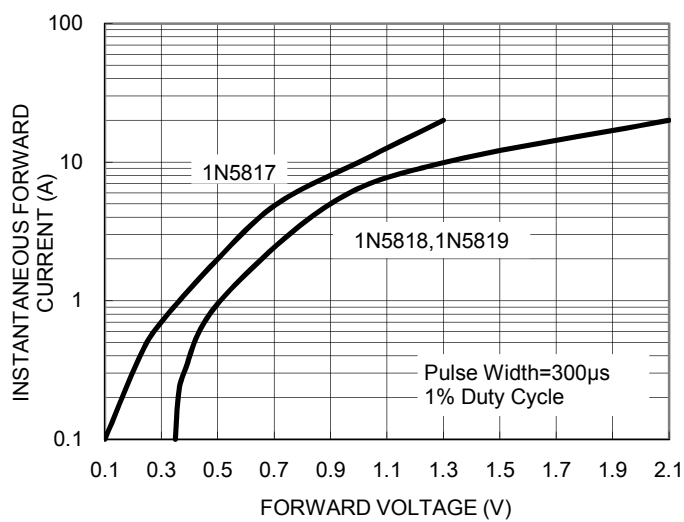


FIG. 4- TYPICAL REVERSE LEAKAGE CHARACTERISTICS

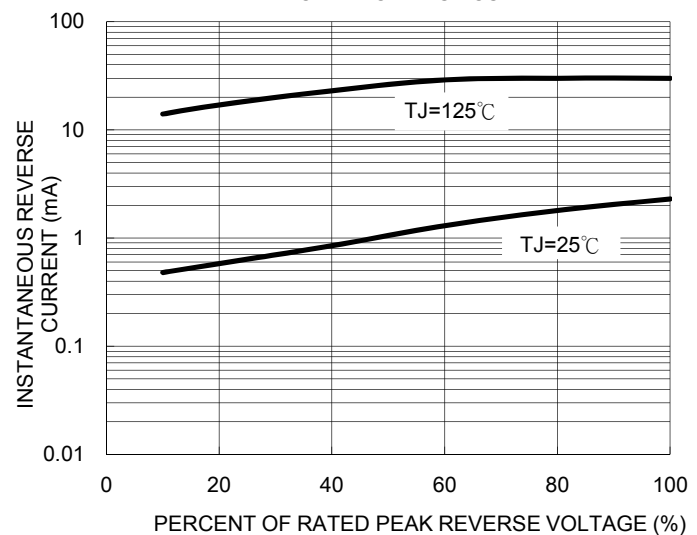


FIG. 5- TYPICAL JUNCTION CAPACITANCE

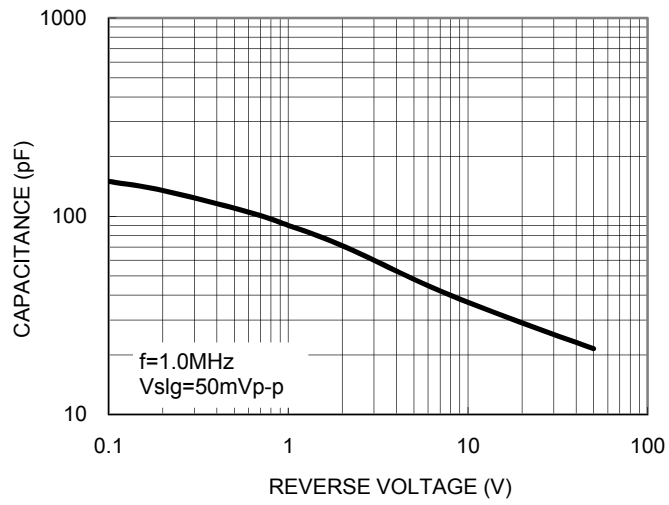
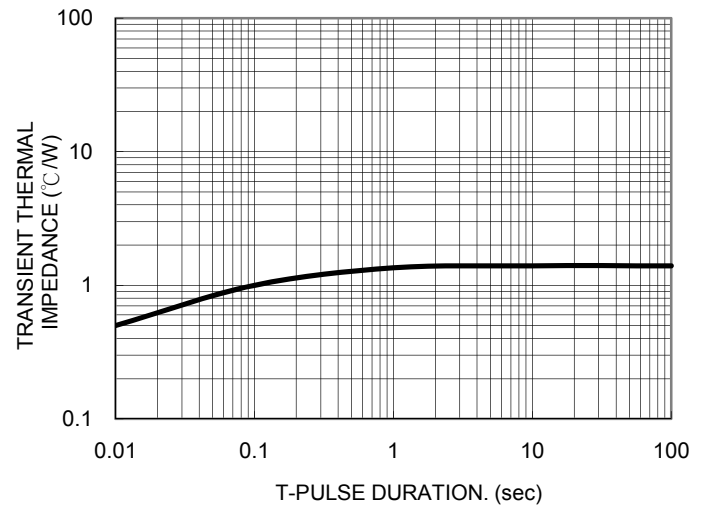
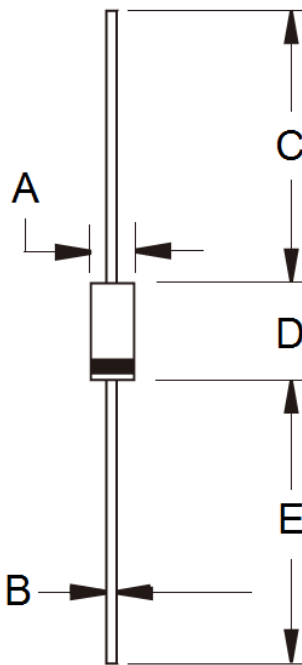


FIG. 6- TYPICAL TRANSIENT THERMAL CHARACTERISTICS



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

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