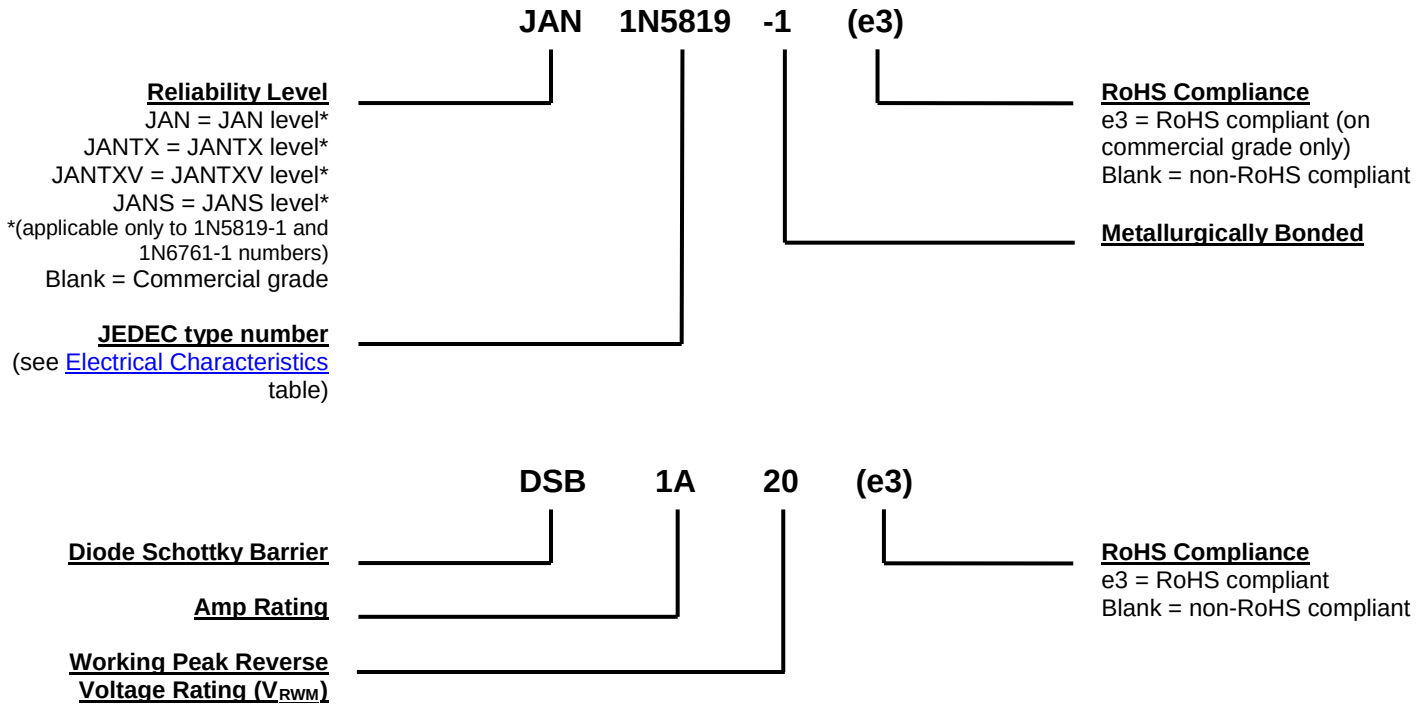
MECHANICAL and PACKAGING

- CASE: Hermetically sealed voidless hard glass with tungsten slugs.
- TERMINALS: Tin/lead or RoHS compliant matte/tin (commercial grade only) over copper.
- MARKING: Body coated in blue with part number.
- POLARITY: Cathode indicated by band.
- TAPE & REEL option: Standard per EIA-296. Consult factory for quantities.
- WEIGHT: Approximately 340 milligrams.
- See Package Dimensions on last page.

PART NOMENCLATURE



SYMBOLS & DEFINITIONS

Symbol	Definition
C_T	Total Capacitance: The total small signal capacitance between the diode terminals of a complete device.
f	frequency
I_{FSM}	Surge Peak Forward Current: The forward current including all nonrepetitive transient currents but excluding all repetitive transients (ref JESD282-B)
I_R	Reverse Current: The dc current flowing from the external circuit into the cathode terminal at the specified voltage V_R.
I_O	Average Rectified Output Current: The output current averaged over a full cycle with a 50 Hz or 60 Hz sine-wave input and a 180 degree conduction angle.
$V_{(BR)}$	Minimum Breakdown Voltage: The minimum voltage the device will exhibit at a specified current.
V_F	Forward Voltage: The positive anode-cathode voltage the device will exhibit at a specified I_F current.
V_R	Reverse Voltage: The dc voltage applied in the reverse direction below the breakdown region.
V_{RWM}	Working Peak Reverse Voltage: The maximum peak voltage that can be applied over the operating temperature range excluding all transient voltages (ref JESD282-B). Also sometimes known as PIV.

***ELECTRICAL CHARACTERISTICS** @ T_A = 25 °C unless otherwise specified

TYPE NUMBER	WORKING PEAK REVERSE VOLTAGE (1)	MAXIMUM FORWARD VOLTAGE			MAXIMUM REVERSE LEAKAGE CURRENT AT RATED VOLTAGE		MAXIMUM CAPACITANCE @ V_R = 5 VOLTS f ≤ 1.0 MHz
	V_{RWM}	V_F @ 0.1A	V_F @ 1.0 A	C_T	I_{RM} @ 25°C	I_{RM} @ 100°C	C_T
	Volts	Volts	Volts	pF	mA	mA	pF
1N5818-1*	30	0.36	0.60	0.9	0.10	5.0	
†1N5819-1	45	0.34	0.49	0.8	0.05	5.0	70
1N6759-1	60	0.38	0.69	NA	0.10	6.0	
1N6760-1	80	0.38	0.69	NA	0.10	6.0	
†1N6761-1	100	0.38	0.69	NA	0.10	12.0	70
DSB1A20	20	0.36	0.60	0.9	0.10	5.0	
DSB1A30	30	0.36	0.60	0.9	0.10	5.0	
DSB1A40	40	0.36	0.60	0.9	0.10	5.0	
DSB1A50	50	0.36	0.60	0.9	0.10	5.0	
DSB1A60	60	0.38	0.69	NA	0.10	12.0	
DSB1A80	80	0.38	0.69	NA	0.10	12.0	
DSB1A100	100	0.38	0.69	NA	0.10	12.0	

***This part number may also be ordered through the number of DSB5818.**
†Also available with JAN, JANTX, JANTXV, and JANS military qualifications.

GRAPHS

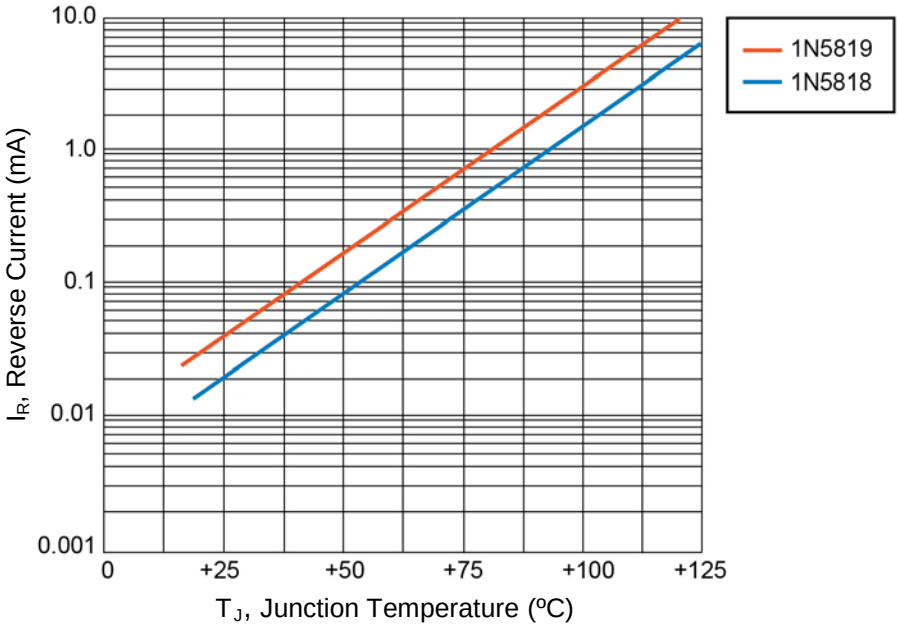


FIGURE 1
Typical Reverse Leakage Current at Rated PIV (PULSED)

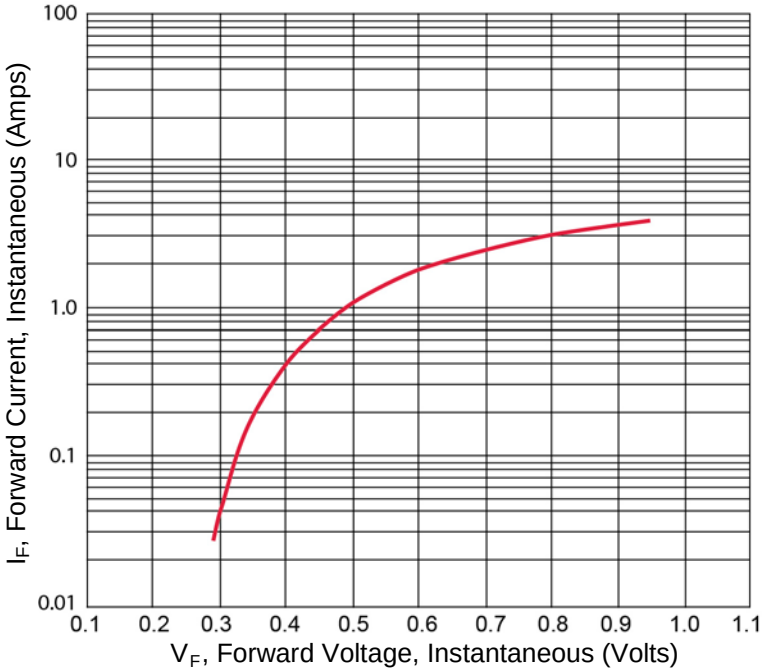


FIGURE 2
Typical Forward Voltage for 1N5819-1

GRAPHS (continued)

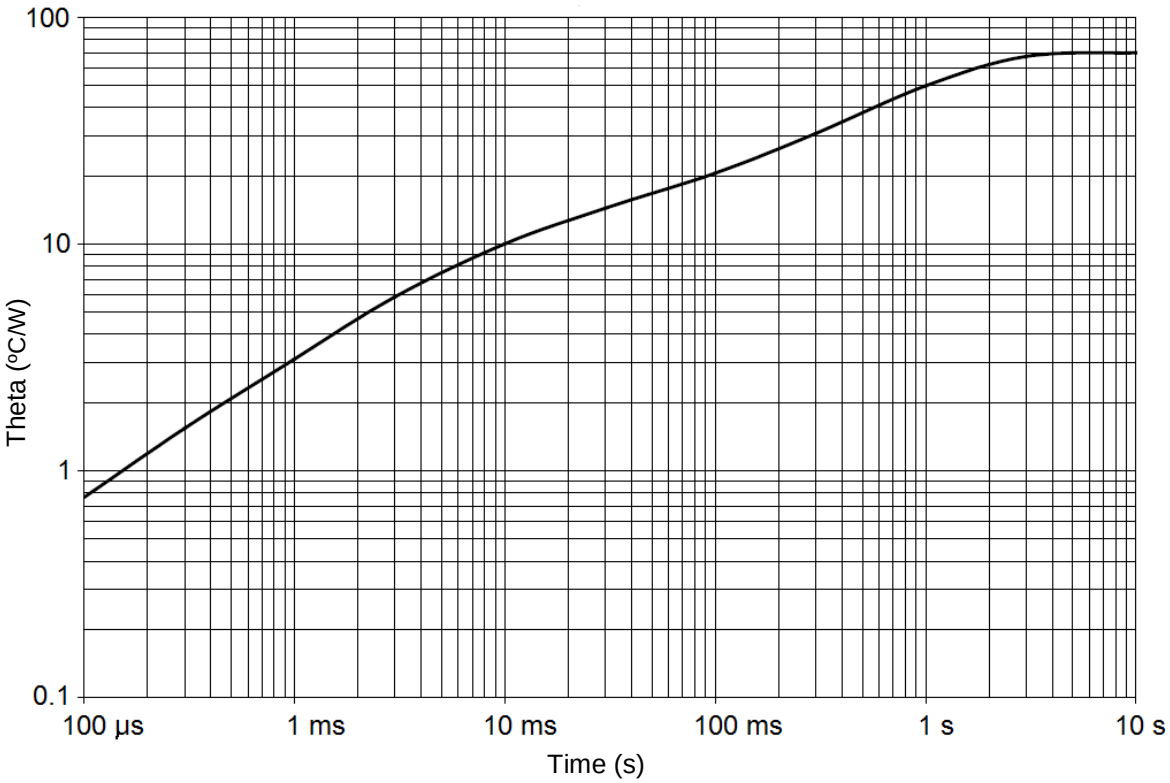
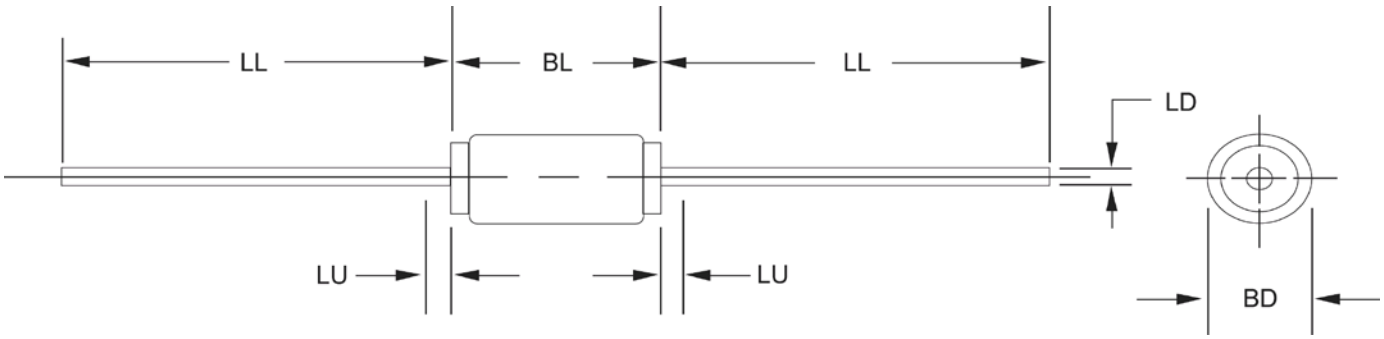


FIGURE 3
Thermal impedance for 1N5819-1 and 1N6761-1 (DO-41)

PACKAGE DIMENSIONS



NOTES:

1. Dimensions are in inches. Millimeters are given for information only.
2. Package contour optional with BD and length BL. Slugs, if any, shall be included within this cylinder length but shall not be subject to minimum limit of BD.
3. Lead diameter not controlled in this zone to allow for flash, lead finish build-up, and minor irregularities other than slugs.
4. In accordance with ASME Y14.5M, diameters are equivalent to Φx symbology.

Ltr	DIMENSIONS				Notes
	INCH		MILLIMETERS		
	Min	Max	Min	Max	
BD	0.080	0.107	2.03	2.72	2
BL	0.160	0.205	4.06	5.21	2
LD	0.028	0.034	0.71	0.86	
LL	1.000	-	25.40	-	
LU	-	0.050	-	1.27	3