1N5711UB, UBCA, UBCC, UBD

Schottky Barrier Diode

Rev. V2

Features

- Qualified to MIL-PRF-19500/444
- Available in JAN, JANTX, JANTXV and JANS
- Low Reverse Leakage
- Ideal For Space, Military, & Other High Reliability Applications
- ESD Sensitive to Class 1C

Electrical Characteristics (T_A = +25°C unless otherwise specified)

Parameter	Test Conditions	Symbol	Units	Min.	Max.
Reverse Breakdown Voltage	I_R = 10 µA dc	$V_{(BR)1}$	V dc	70	—
Reverse Breakdown Voltage	T_A = -55°C I_R = 10 µA dc	$V_{(BR)2}$	V dc	70	—
Forward Voltage	I_F = 1 mA dc	V_{F1}	V dc	—	0.410
Forward Voltage	I_F = 15 mA dc	V_{F2}	V dc	—	1.0
Forward Voltage	T_A = -55°C I_F = 1 mA dc	V_{F3}	V dc	—	.550
Forward Voltage	T_A = -55°C I_F = 15 mA dc	V_{F4}	V dc	—	1.0
Reverse Current	V_R = 50 V dc	I_{R1}	nA dc	—	200
Reverse Current	T_A = +150°C V_R = 50 V dc	I_{R2}	µA dc	—	200
Capacitance	V_R = 0, f = 1 MHz, V_{sig} = 50 mV (pk)	C	pF	—	2.0
Effective Carrier Lifetime	(See DESC Drawing C68001)	t_{CL}	ps		100

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Absolute Maximum Ratings (T_A = +25°C unless otherwise specified)

Ratings	Symbol	Value
Working Voltage	V_{RWM}	50 V (pk)
Reverse Current	I_{O1}	33 mA dc (2)
Reverse Current (1)	I_{O2}	5 mA dc
Operating & Storage Temperature Range	T_J, T_{STG}	-65°C to +150°C

Notes:

(1) Maximum IO rating to ensure t_{CL} compliance (< 100 ps)
(2) At T_{SP} = +140°C, derate I_O to 0 at +150°C.

Thermal Characteristics (T_A = +25°C unless otherwise specified)

Characteristics	Symbol	Max. Value
Thermal Resistance, Junction to Solder Pad	$R_{\theta JSP}$	170°C/W

Mechanical And Packaging Information

Case: Ceramic

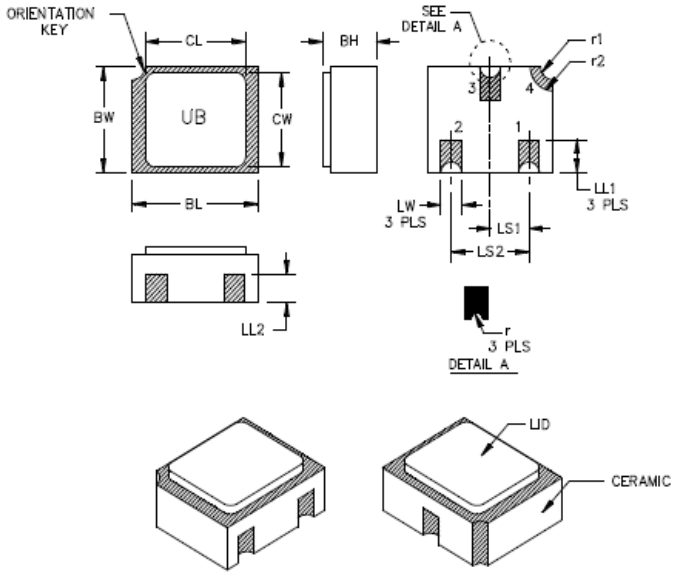
Terminals: Gold plating over nickel

Marking: Laser scribed; part number, date code, manufacturers ID. JANS devices include serial number

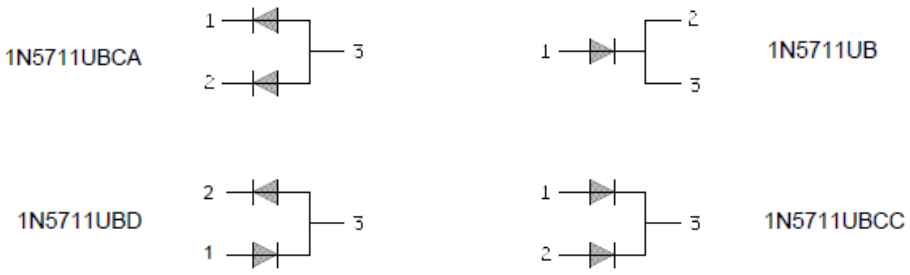
Weight: Approximately 4 grams

Tape and Reel Option Available: Contact factory

Outline Drawing (UB)



Symbol	Dimensions				Symbol	Dimensions			
	Inches		Millimeters			Inches		Millimeters	
	Min	Max	Min	Max		Min	Max	Min	Max
BH	.046	.056	1.17	1.42	LS_1	.035	.040	0.89	1.02
BL	.115	.128	2.92	3.25	LS_2	.071	.079	1.81	2.01
BW	.085	.108	2.16	2.74	LW	.016	.024	0.41	0.61
CL		.128		3.25	r		.008		0.20
CW		.108		2.74	r1		.012		0.31
LL1	.022	.038	0.56	0.96	r2		.022		0.56
LL2	.017	.035	0.43	0.89					



NOTES:
1. Dimensions are in inches.
2. Millimeters are given for general information only.
3. Hatched areas on package denote metallized areas.
4. Pad 4 = Shielding connected to the lid.
5. In accordance with ASME Y14.5M, diameters are equivalent to ϕx symbology.

Graphs

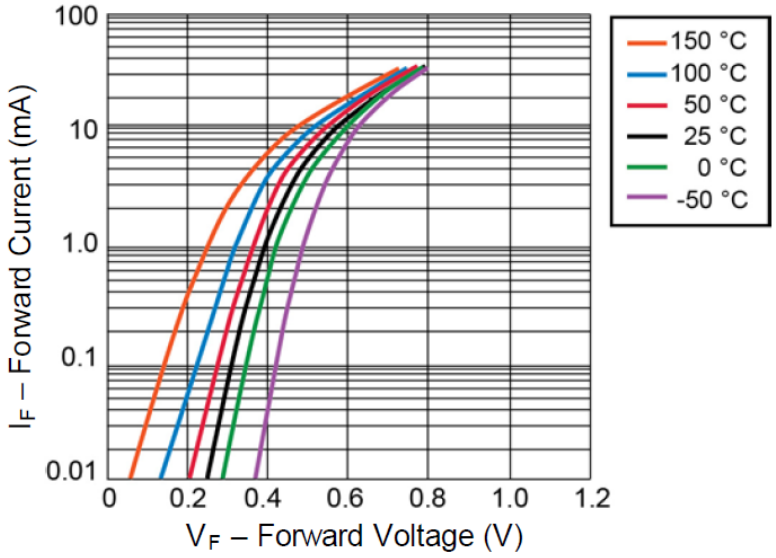


FIGURE 1
I-V Curve showing typical Forward Voltage Variation

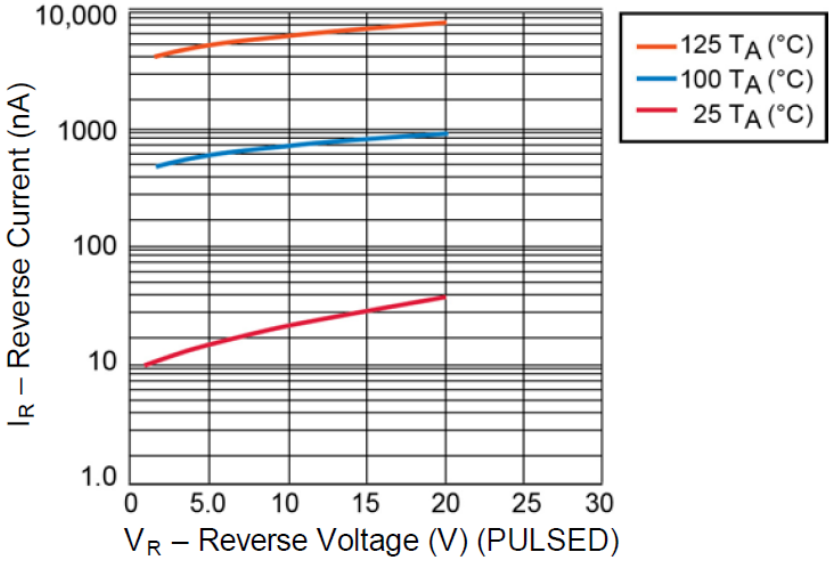


FIGURE 2

Graphs

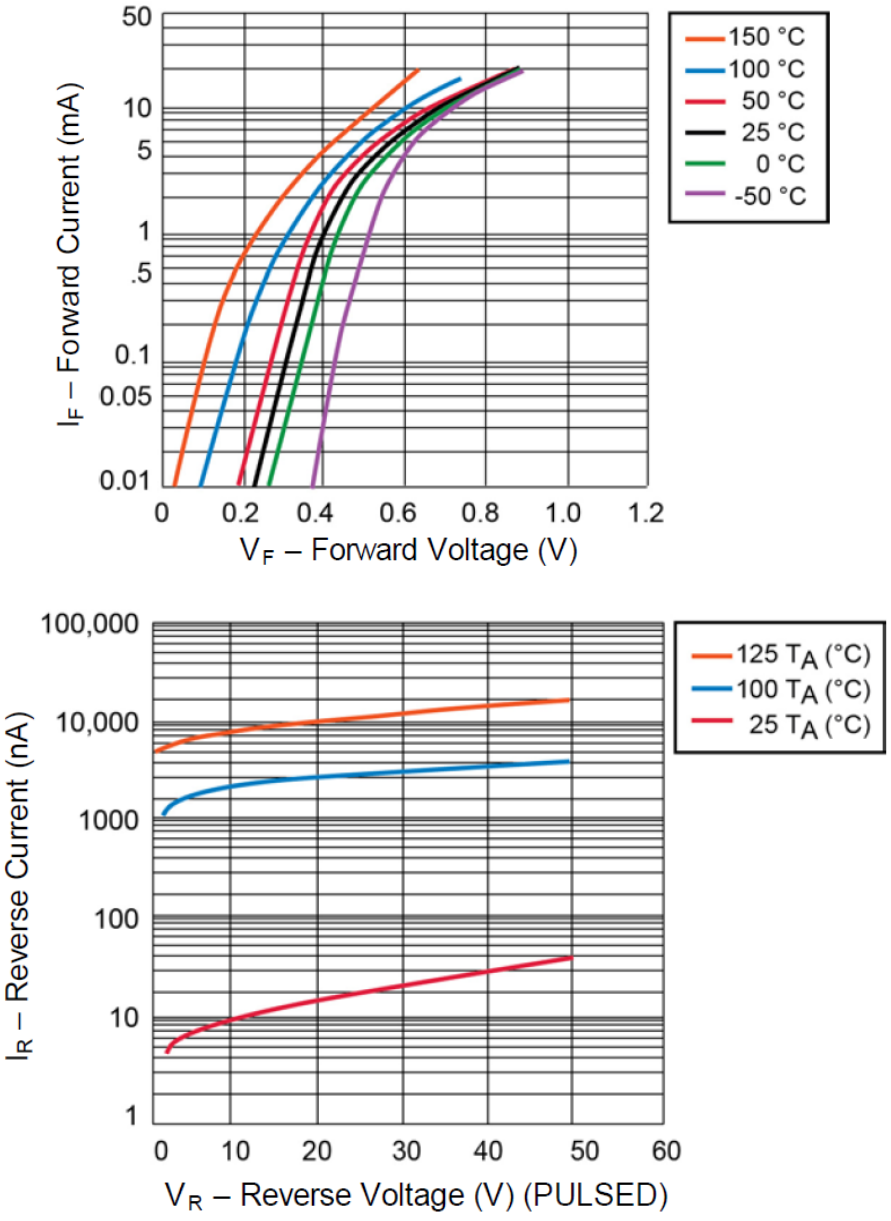


FIGURE 4
1N5711 Typical Variation of Reverse Current (I_R) vs Reverse Voltage (V_R) at Various Temperatures