TRANSIENT VOLTAGE SUPPRESSORS
500W, Military

1N6461-1N6468
JAN, JANTX & JANTXV

4

FEATURES
- 500W Power Capability for 1ms pulse
- Glass Encapsulated Device
- Clamping Time in Picoseconds

DESCRIPTION
Transient voltage suppressor of noncavity design and qualified to MIL-S-19500/551. Metallurgically bonded for high reliabilty.

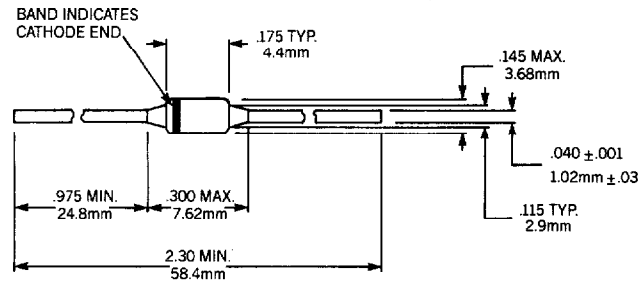
ABSOLUTE MAXIMUM RATINGS @ 25°C

Stand-off Voltage, V_R	5.0V to 51.6V
Peak Pulse Power (1ms)*, P_{PR}	500W
Forward Surge Current @ tp = 8.33ms, I_{FSM}	80A(pk)
Peak Pulse Current	see table
Breakdown Voltage	see table
Power, Continuous (Derate @ 16.7mW/°C above T_A = 25°C), P_R	2.5W
Storage Temperature	-55°C to +200°C
Operating Temperature	-55°C to +175°C

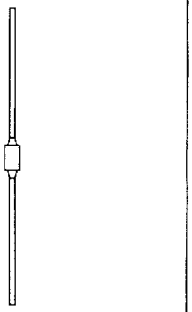
*See Figure 2 for Peak Pulse Power vs. Pulse Duration.

MECHANICAL SPECIFICATIONS

J, JTX & JTXV 1N6461-1N6468



BODY B



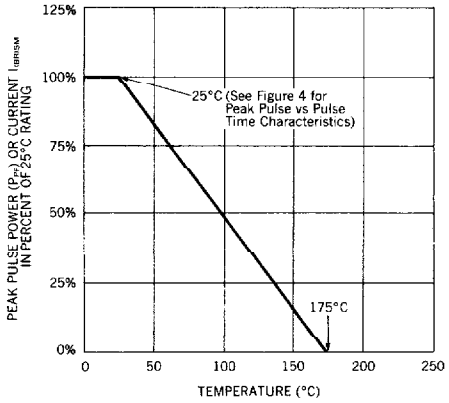
THESE DEVICES ALSO AVAILABLE IN SURFACE MOUNT PACKAGE. SEE SECTION 10

Microsemi Corp.
Watertown
The diode experts

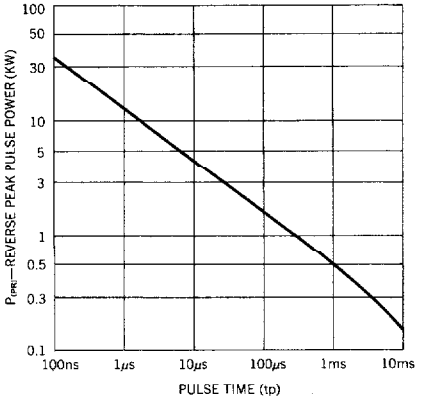
ELECTRICAL SPECIFICATIONS @ 25°C

Part No.	Stand-off Voltage V_R	Min. Breakdown Voltage @ I_{BR}	Test Current I_{BR} @ tp = 300ms Duty Cycle ≤ 2%	Max. Leakage Current I_R @ V_R	Max. Peak Pulse Current I_{pp}		Max. Clamping Voltage ($V_{C\ MAX.}$) @ Ipp for tp = 1ms	Max. Clamping Voltage @ Ipp (tp = 1ms) Inverse Voltage $-V_{C\ Max.}$	Max. Temperature Coefficient ∝ $V_{(BR)}$
					tp = 1ms tr = 10μs (Fig. 3)	tp = 20μs tr = 8μs (Fig. 4)			
	V	V	mA	μA	A(pk)	A(pk)	V	V	%/°C
1N6461	5.0	5.6	25	3000	56	315	9.0	-3.5	0.040
1N6462	6.0	6.5	20	2500	46	258	11.0	-3.2	0.040
1N6463	12.0	13.6	5	500	22	125	22.6	-3.8	0.050
1N6464	15.0	16.4	5	500	19	107	26.5	-3.8	0.060
1N6465	24.0	27.0	2	50	12	69	41.4	-3.6	0.084
1N6466	30.5	33.0	1	3	11	63	47.5	-3.6	0.093
1N6467	40.3	43.7	1	2	8	45	63.5	-3.5	0.094
1N6468	51.6	54.0	1	2	6	35	78.5	-3.4	0.096

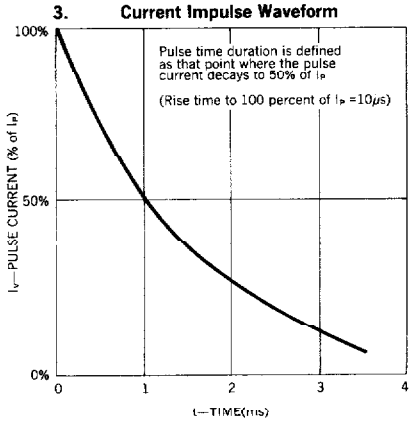
1. Derating Curve



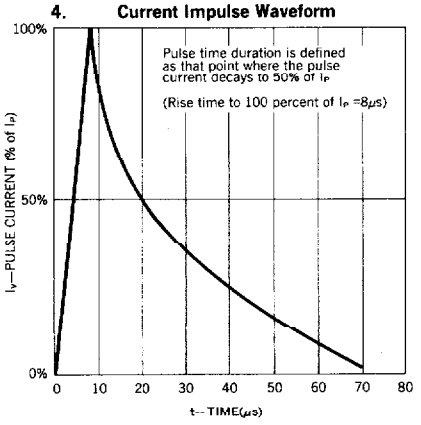
2. Peak Pulse Power vs. Pulse Duration



3. Current Impulse Waveform



4. Current Impulse Waveform



580 PLEASANT STREET • WATERTOWN, MA 02172
TEL. (617) 926-0404 • FAX (617) 924-1235