

DESCRIPTION

The 1N64xx series of transient voltage suppressors are designed to protect military and commercial electronic equipment from overvoltages caused by lightning, ESD, EFT, inductive load switching, and EMP. These devices are constructed using a p-n junction TVS diode in a hermetically sealed, voidless glass package. The hermetically sealed package provides high reliability in harsh environmental conditions. TVS diodes are further characterized by their high surge capability, low operating and clamping voltages, and a theoretically instantaneous response time. This makes them ideal for use as board level protection for sensitive semiconductor components. These devices are DSCC QPL qualified to MIL-PRF-19500/552.

FEATURES:

- 1500 Watts Peak Pulse Power ($t_p = 10/1000\mu s$)
- Voidless hermetically sealed glass package
- Metallurgically bonded
- High surge capacity
- Unidirectional
- Available in **JAN**, **JTX**, and **JTXV** versions per MIL-PRF-19500/552

MECHANICAL CHARACTERISTICS:

- Hermetically sealed glass package
- Tinned copper leads
- Marking : P/N, date code, logo, & cathode band

APPLICATIONS:

- Aerospace & Industrial Electronics
- Board Level Protection
- Airborne Systems
- Shipboard Systems
- Ground Systems

MAXIMUM RATINGS

RATING	SYMBOL	VALUE	UNIT
Peak Pulse Power ($t_p = 10 \times 1000\mu s$)	Ppk	1500	Watts
Operating Temperature	Tj	-65 to +175	°C
Storage Temperature	Tstg	-65 to +175	°C
Steady-State Power Dissipation @ TL = 75°C (3/8")	PD	5	Watts

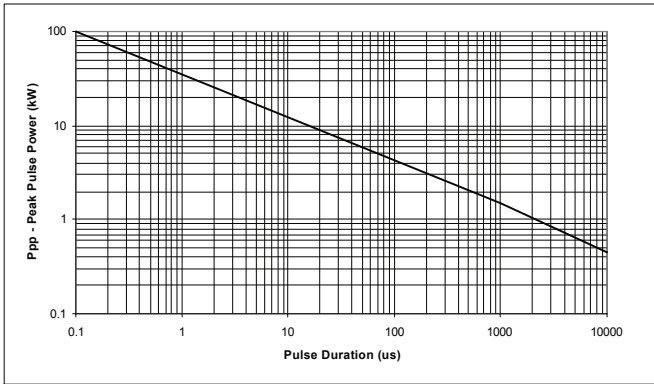
ELECTRICAL CHARACTERISTICS @ 25°C (unless otherwise specified)

DEVICE TYPE	REVERSE STAND-OFF VOLTAGE V_{RWM}	REVERSE LEAKAGE CURRENT I_R	MINIMUM BREAKDOWN VOLTAGE $V_{BR} @ I_T$	TEST CURRENT I_T	MAXIMUM CLAMPING VOLTAGE $V_c @ I_{pp}$	PEAK PULSE CURRENT I_{pp} $T_p = 1mS$	PEAK PULSE CURRENT I_{pp} $T_p = 20\mu S$	TEMPERATURE COEFFICIENT OF V_{BR} α_{Vz}
	(V)	(μA)	(V)	(mA)	(V)	(A)	(A)	% /°C
1N6469	5	1500	5.6	50	9.0	167	945	0.040
1N6470	6	1000	6.5	50	11.0	137	775	0.040
1N6471	12	20	13.6	10	22.6	66	374	0.050
1N6472	15	10	16.4	10	26.5	57	322	0.060
1N6473	24	5	27.0	5	41.4	36.5	206	0.084
1N6474	30.5	5	33.0	1	47.5	32	190	0.093
1N6475	40.3	5	43.7	1	63.5	24	136	0.094
1N6476	51.6	5	54.0	1	78.5	19	106	0.096

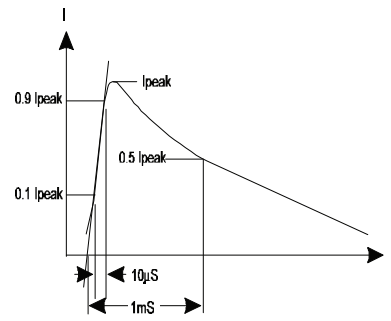


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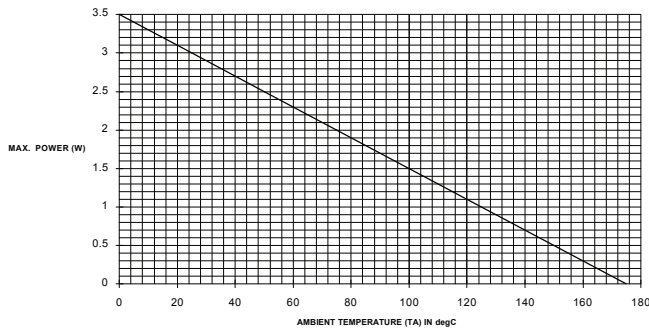
PEAK PULSE POWER vs. PULSE TIME



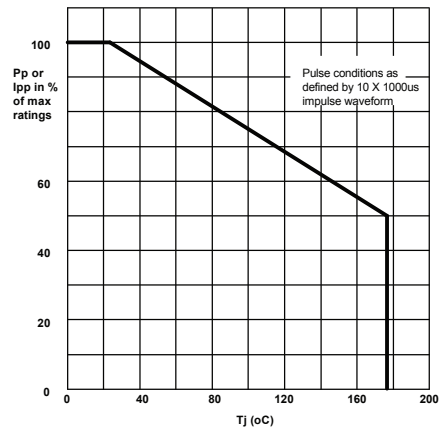
10x1000μs IMPULSE WAVEFORM



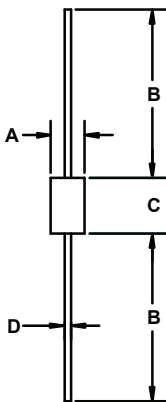
STEADY STATE DERATING CHARACTERISTICS FOR FREE AIR MOUNTING



PULSE DERATING CURVE



MECHANICAL OUTLINE



DIM ^N	DIMENSIONS				NOTE
	INCHES		MM		
	MIN	MAX	MIN	MAX	
A	0.150	0.185	3.81	4.70	
B	0.900	1.300	22.86	33.02	
C	0.160	0.375	4.06	9.53	2
D	0.037	0.042	0.94	1.07	2

- NOTES :
1. Controlling dimension is inches.
 2. Includes uncontrolled area of device leads.

SCHEMATIC



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