



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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## POWER DISCRETES

### 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

### Applications

- ◆ Aerospace and industrial electronics
- ◆ Board level protection
- ◆ Airborne systems
- ◆ Shipboard systems
- ◆ Ground systems

### Mechanical Characteristics

- ◆ Hermetically sealed glass package

### Absolute Maximum Ratings

Rating	Symbol	Value	Units
Peak Pulse Power ( $t_p = 10 \times 1000\mu s$ )	Ppk	1500	Watts
Operating Temperature Range	T <sub>j</sub>	-65 to +175	°C
Storage Temperature Range	T <sub>STG</sub>	-65 to +175	°C
Steady-State Power Dissipation @ TL = 75°C (3/8")	PD	5	Watts

### Electrical Characteristics

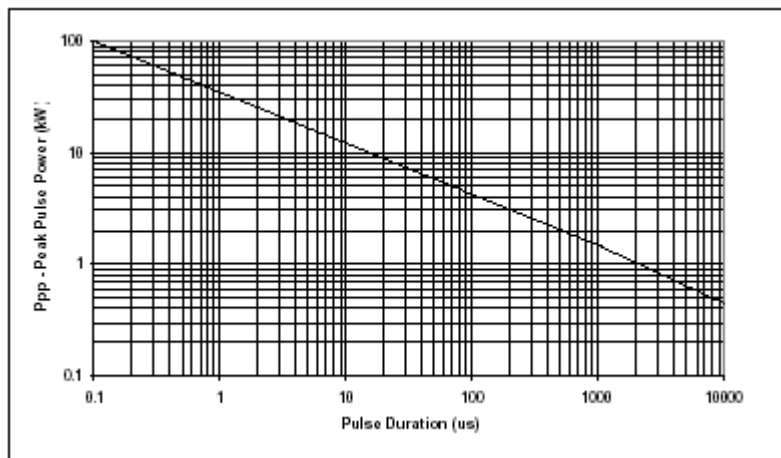
Electrical specifications @ T<sub>A</sub> = 25°C unless otherwise specified.

Device Type	Reverse Standoff Voltage V <sub>RWM</sub>	Reverse Leakage Current I <sub>R</sub>	Minimum Breakdown Voltage V <sub>BR</sub> @ I <sub>T</sub>	Test Current I <sub>T</sub>	Maximum Clamping Voltage V <sub>C</sub> @ I <sub>PP</sub>	Peak Pulse Current I <sub>PP</sub> T <sub>P</sub> = 1mS	Peak Pulse Current I <sub>PP</sub> T <sub>P</sub> = 20μS	Temp. Coef. of V <sub>BR</sub> αV <sub>Z</sub>
	V	μA	V	mA	V	A	A	%/°C
1N6469	5	1500	5.6	50	9	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

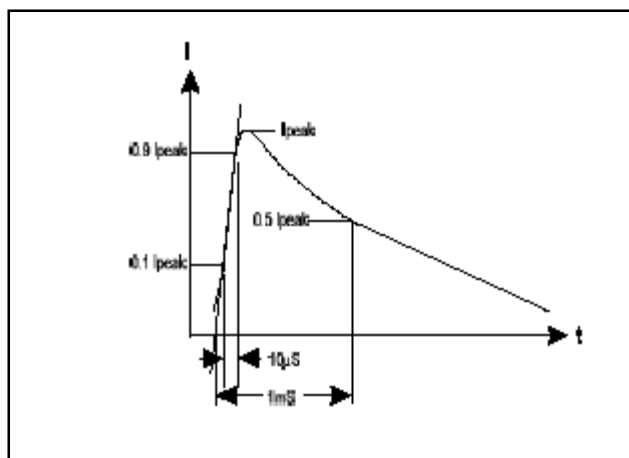
## POWER DISCRETES

### Electrical Characteristics

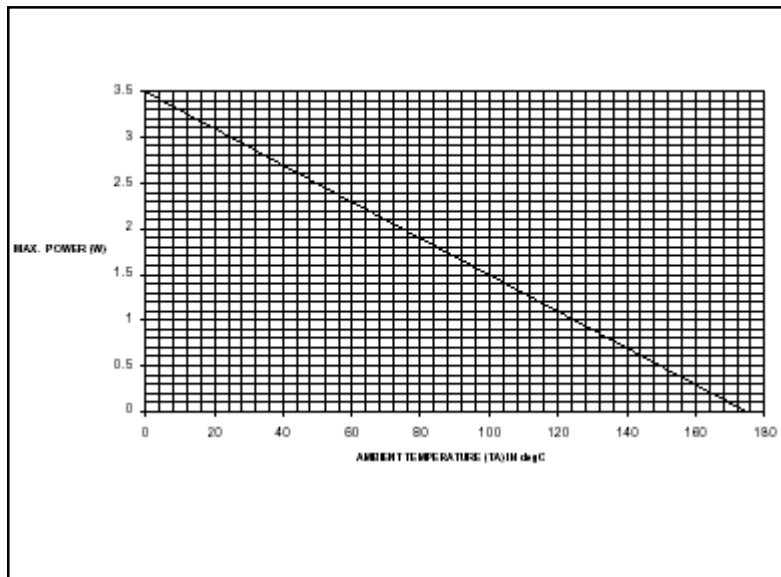
PEAK PULSE POWER vs. PULSE TIME



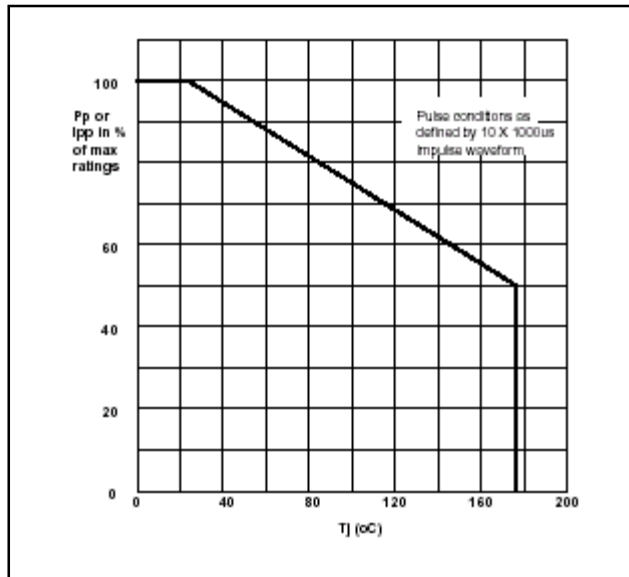
10 x 1000μs IMPLUSE WAVEFORM



STEADY STATE DERATING CHARACTERISTICS  
FOR FREE AIR MOUNTING



PULSE DERATING CURVE



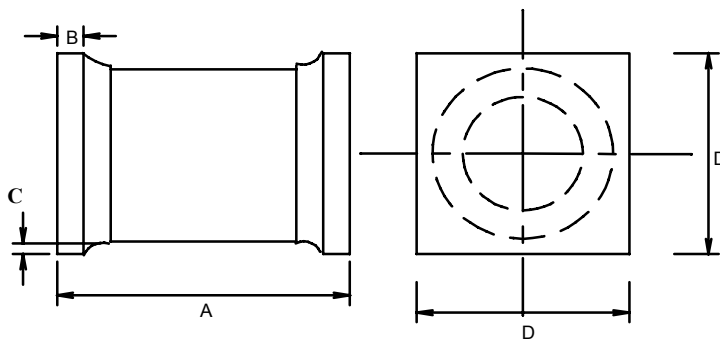


**POWER DISCRETES**
**Ordering Information**

Part Number	Description
1N6469US, 1N6470US, 1N6471US, 1N6472US, 1N6473US, 1N6474US, 1N6475US, 1N6476US	Surface Mount (US) <sup>(1)</sup>

Note:

(1) Available in trays and tape and reel packaging. Please consult factory for quantities.

**Outline Drawing**


	Dimensions	
	1N6469US - 1N6476US	
	Inches	
	MIN	MAX
A	0.205	0.245
B	0.019	0.028
C	0.003	-
D	0.183	0.202

**Contact Information**

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