

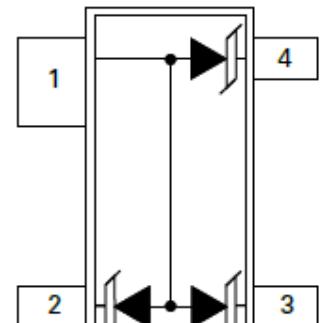


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MAITUO ELECTRONIC

## ZX0503B TVS Diode Array

### Features

- ◆ 150 Watts peak pulse power ( $tp = 8/20\mu s$ )
- ◆ Transient protection for high speed data lines to IEC 61000-4-2 (ESD)  $\pm 15kV$  (air),  $\pm 8kV$  (contact)  
IEC 61000-4-4 (EFT) 40A (5/50ns)
- ◆ Protects two bidirectional line or four unidirectional lines
- ◆ Low operating and clamping voltages
- ◆ Solid-state silicon avalanche technology



SOT143

### Applications

- ◆ Notebooks, Desktops, Servers and Video Graphics Cards
- ◆ USB Power & Data Line Protection
- ◆ Monitors and Flat Panel Displays
- ◆ I<sup>2</sup>C Bus Protection
- ◆ Portable Instrumentation
- ◆ Set Top Box

Maximum Rating @  $T_a=25^\circ C$  unless otherwise specified

Symbol	Parameter	Ratings	Units
P <sub>PK</sub>	Peak Pulse Power ( $tp = 8/20\mu s$ )	150	Watts
T <sub>L</sub>	Lead Soldering Temperature	260(10sec.)	°C
T <sub>J</sub>	Operating Temperature	-55 to +125	°C
T <sub>STG</sub>	Storage Temperature	-55 to +150	°C



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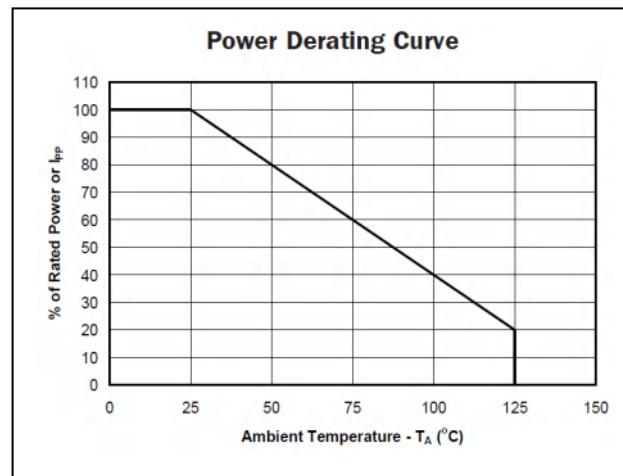
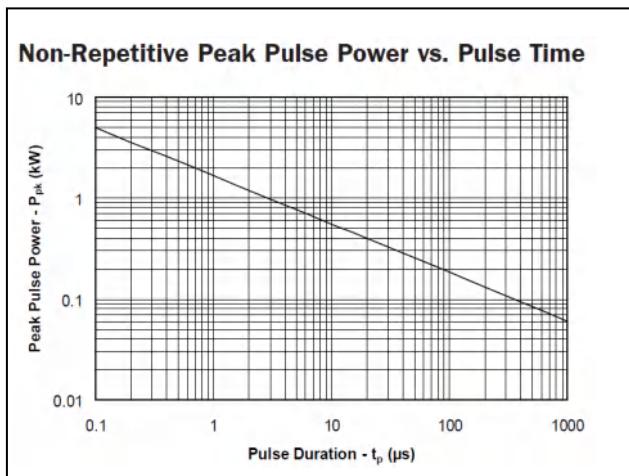
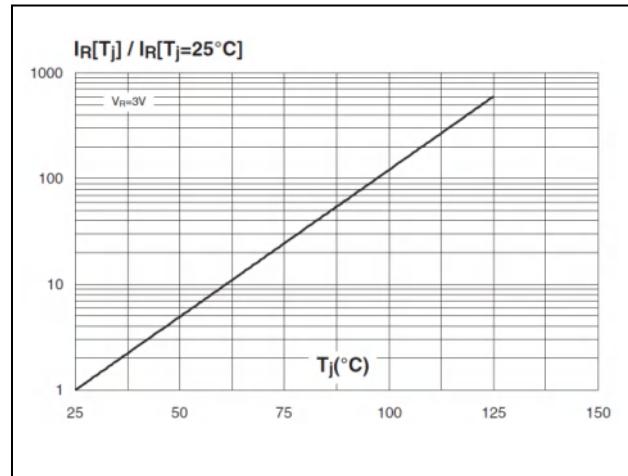
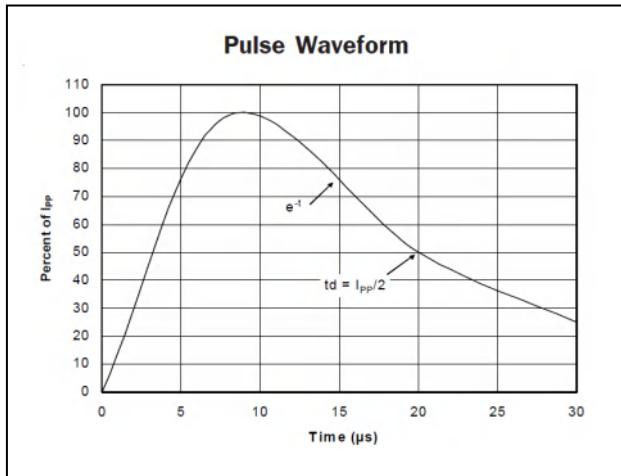
Electrical Characteristics@ Ta=25°C unless otherwise

Symbol	Parameter	Conditions	Min.	Typ.	Max.	Units
$V_{RWM}$	Reverse Working Voltage	Any I/O to Ground			5.0	V
$V_{BR}$	Reverse Breakdown Voltage	$I_T = 1\text{mA}$ , Any I/O to Ground	6.0			V
$I_R$	Reverse Leakage Current	$V_{RWM} = 5\text{V}$ , Any I/O to Ground			1	$\mu\text{A}$
$V_C$	Clamping Voltage	$I_{PP} = 1\text{A}$ , $t_p = 8/20\mu\text{s}$ , any I/O pin to Ground			10	V
		$I_{PP} = 10\text{A}$ , $t_p = 8/20\mu\text{s}$ , any I/O pin to Ground			15	V
$C_J$	Junction Capacitance	$V_R = 0\text{V}$ , $f = 1\text{MHz}$ , between I/O pins		40	50	pF
		$V_R = 0\text{V}$ , $f = 1\text{MHz}$ , any I/O pin to Ground		80	100	pF



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Typical Characteristics@ Ta=25°C unless otherwise specified





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## Package Outline

Plastic surface mounted package

SOT-143

DIM <sup>N</sup>	DIMENSIONS				NOTE
	INCHES	MM	MIN	MAX	
A	.110	2.80	.120	3.04	—
B	.047	1.20	.055	1.40	—
C	.031	.80	.047	1.20	—
D	.014	.37	.018	.510	—
E	.030	.76	.035	.940	—
G	.076	1.92	BSC	BSC	—
H	.068	1.72	BSC	BSC	—
J	.003	.085	.005	.180	—
K	.002	.013	.005	0.10	—
L	.010	.55	.022	—	REF
S	.082	2.10	.104	2.64	—