ESRV05-4

Low Capacitance TVS Array

Description

The ESRV05-4 has been specifically designed to protect sensitive compo-nents which are connected to data and transmission lines from overvoltage caused by electrostatic dis-charge (ESD), electrical fast transients (EFT), and lightning.

The unique design of the series devices incorpo-rates eight surge rated, low capacitance steering diodes and a TVS diode in a single package. During transient conditions, the steering diodes direct the transient to either the positive side of the power supply line or to ground. The internal TVS diode prevents over-voltage on the power line, protecting any down-stream components.

Applications:

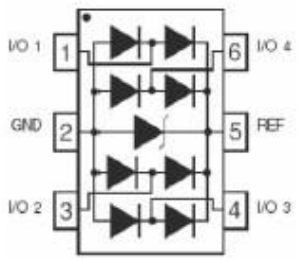
- USB 2.0 Power and Data Line Protection
- Video Graphics Cards
- Monitors and Flat Panel Displays
- Digital Video Interface (DVI)
- 10/100/1000 Ethernet
- Notebook Computers、SIM Ports
- ATM Interfaces
- IEEE 1394 Firewire Ports
- RoHS compliant package

Packing & Order Information

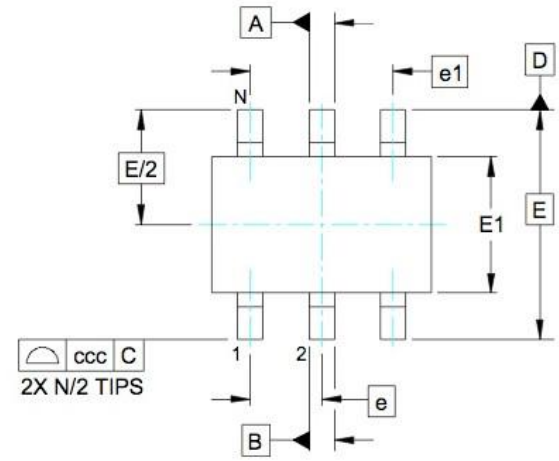
3,000/Reel

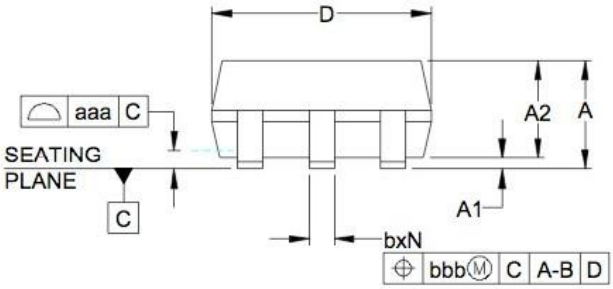
RoHS
COMPLIANT

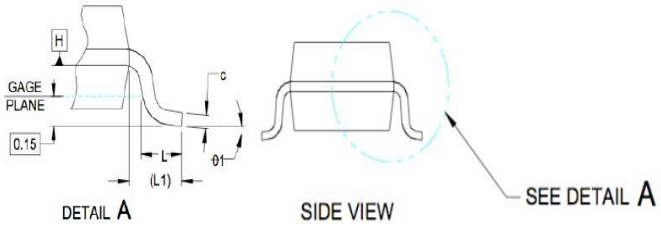
Graphic symbol



SOT23-6







DIMENSIONS						
DIM	INCHES			MILLIMETERS		
	MIN	NOM	MAX	MIN	NOM	MAX
A	-	-	.043	-	-	1.10
A1	.000	-	.004	0.00	-	0.10
A2	.028	.035	.039	0.70	0.90	1.00
b	.006	-	.012	0.15	-	0.30
c	.003	-	.009	0.08	-	0.22
D	.071	.079	.087	1.80	2.00	2.20
E1	.045	.049	.053	1.15	1.25	1.35
E	.083 BSC			2.10 BSC		
e	.026 BSC			0.65 BSC		
e1	.051			1.30 BSC		
L	.010	.014	.018	0.26	0.36	0.46
L1	(.017)			(0.42)		
N	6			6		
θ1	0°	-	8°	0°	-	8°
aaa	.004			0.10		
bbb	.004			0.10		
ccc	.012			0.30		

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MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Maximum Ratings @25°C unless otherwise Specified			
Symbol	Parameter	Value	Unit
Ppk	Peak Pulse Power (tp = 8/20μs) See Figure 1	500	W
I_{PP}	Peak Pulse Current (tp = 8/20μs)	43	A
T_{STG}	Storage Temperature Range	-55 to +150	°C
T_J	Operating Temperature	-55 to +150	°C
V_F	Forward Surge Rating (1/20 seconds @ 25°C, I_F=10 mA)	1.5	°C

Electrical Characteristics							
Part Numbers	VBR			IT	VRWM	IR	Cj
	Min.	Typ.	Max.				TYP
	V	V	V	mA	V	μA	PF
ERV05-4	6.0	6.7	-	1	5.0	5	3.5

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■Typical Device Characteristics

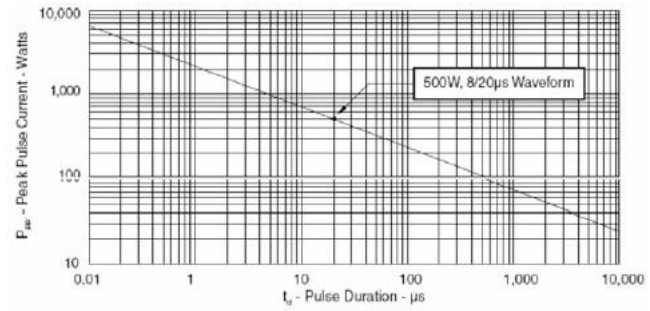

FIG.1-PEAK PULSE POWER VS PULSE TIME

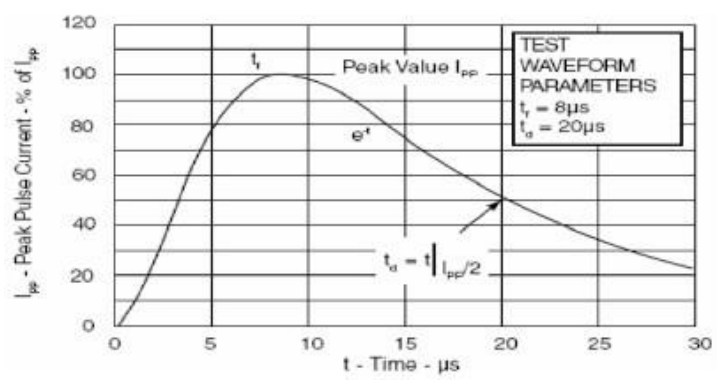

FIG.2-POWER WAVE FORM

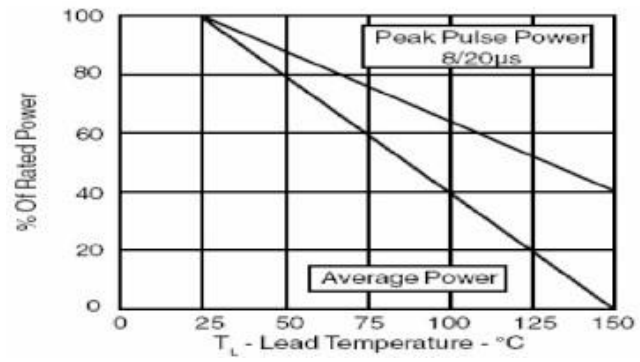

FIG.3-POWER DERATING CURVE

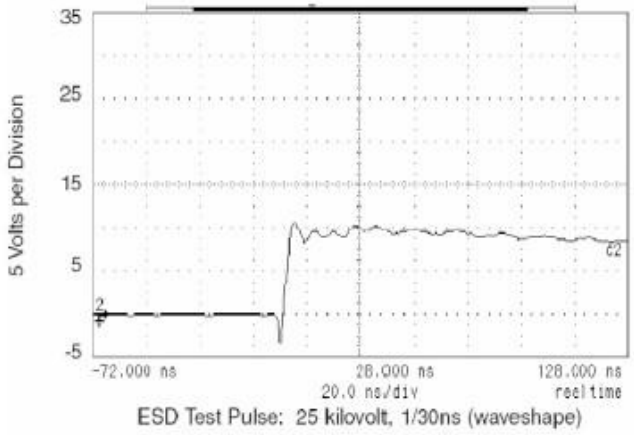

FIG.4-OVERSHOOT & CLAMPING VOLTAGE FOR ERV05-4

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