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SEMICONDUCTOR



ESD



TVS



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PLED

Product data sheet

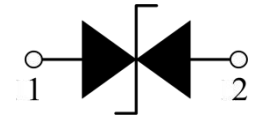
Feature

- 100W peak pulse power per line ($t_p = 8/20\mu s$)
- Replacement for MLV(0402)
- Bidirectional configurations
- Response time is typically $< 1ns$
- Low clamping voltage
- RoHS compliant
- Transient protection for data lines to IEC61000-4-2(ESD) $\pm 15KV$ (air), $\pm 12KV$ (contact); IEC61000-4-4 (EFT) 40A (5/50ns)

Pin Description



Schematic Diagram



DFN1006

Applications

- Cellular phones
- Portable devices
- Digital cameras
- Power supplies

Electrical characteristics per line@25°C (unless otherwise specified)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Peak Reverse Working Voltage	V_{RWM}				5	V
Breakdown Voltage	V_{BR}	$I_t = 1mA$	5.6			V
Reverse Leakage Current	I_R	$V_{RWM} = 5V T=25^\circ C$			1.0	μA
Maximum Reverse Peak Pulse Current	I_{PP}			5.5		A
Clamping Voltage	V_C	$I_{PP}=1A$			10	V
Clamping Voltage	V_C	$I_{PP}=3A$			15	V
Clamping Voltage	V_C	$I_{PP}=5A$			21	V
Junction Capacitance	C_j	$V_R=0V f = 1MHz$		1		pF

Absolute maximum rating@25°C

Rating	Symbol	Value	Units
Peak Pulse Power ($t_p=8/20\mu s$)	P_{pp}	100	W
Peak Pulse Current ($t_p=8/20\mu s$)	I_{pp}	5	A
Operating Temperature	T_J	-55 to 150	$^\circ C$
Storage Temperature	T_{STG}	-55 to 150	$^\circ C$

Electrical Parameter

Symbol	Parameter
I_{PP}	Maximum Reverse Peak Pulse Current
V_C	Clamping Voltage @ I_{PP}
V_{RWM}	Working Peak Reverse Voltage
I_R	Maximum Reverse Leakage Current @ V_{RWM}
I_T	Test Current
V_{BR}	Breakdown Voltage @ I_T

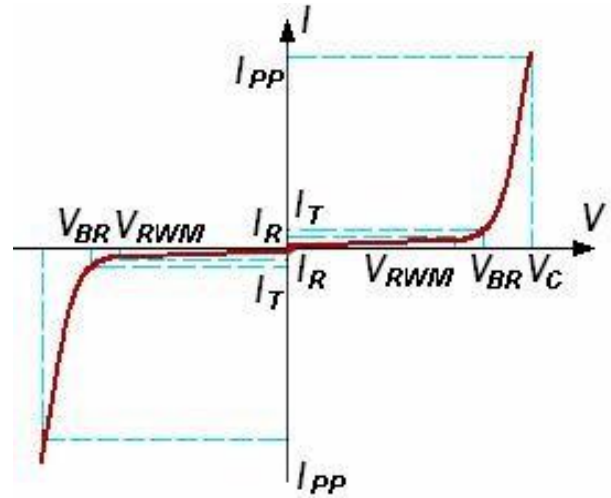


FIG1: Pulse Waveform

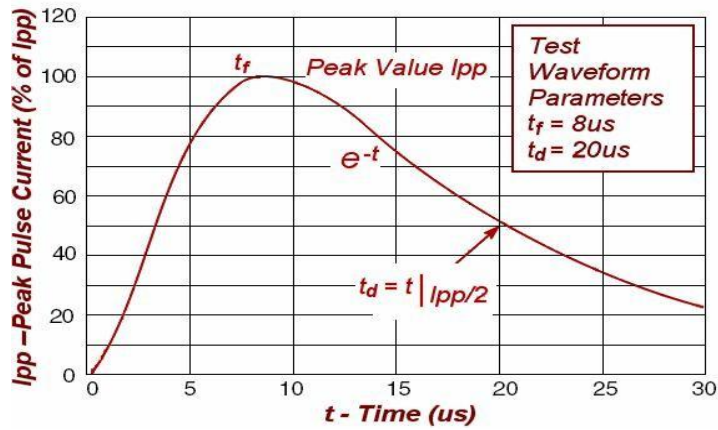
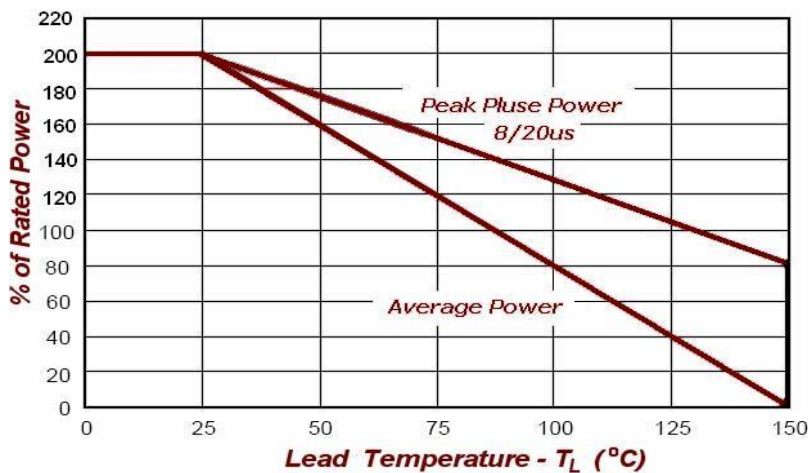
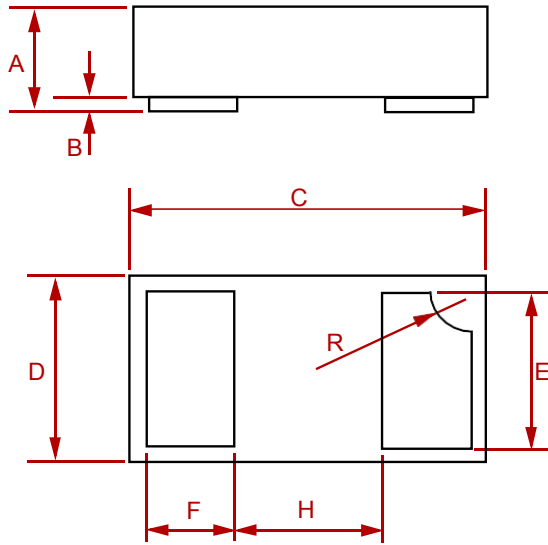


FIG2: Power Derating

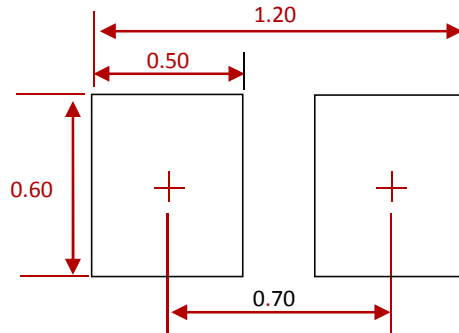


PACKAGE MECHANICAL DATA



Dim	Inches		Millimeters	
	MIN	MAX	MIN	MAX
A	0.0125	0.02	0.32	0.52
B	0.000	0.002	0.00	0.05
C	0.037	0.043	0.95	1.080
D	0.022	0.027	0.55	0.680
E	0.016	0.024	0.40	0.60
F	0.008	0.012	0.20	0.30
H	0.015Typ.		0.40Typ.	
R	0.001	0.005	0.05	0.15

Suggested Pad Layout



NOTES:

1. CONTROLLING DIMENSIONS ARE IN MILLIMETERS (ANGLES IN DEGREES).
2. THIS LAND PATTERN IS FOR REFERENCE PURPOSES ONLY. CONSULT YOUR MANUFACTURING GROUP TO ENSURE YOUR COMPANY'S MANUFACTURING GUIDELINES ARE MET.

REEL SPECIFICATION

P/N	PKG	QTY
TPD1E1B04DPYR-MS	DFN1006	10000

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