

MSKSEMI

SEMICONDUCTOR



ESD



TVS



TSS



MOV

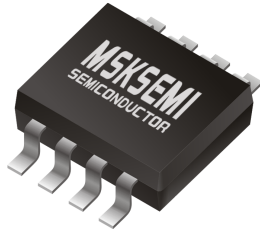


GDT

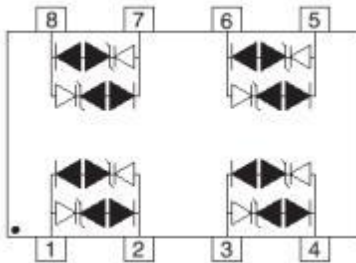


PLED

Product data sheet



SOP-8



Features

- 400 W Peak Pulse Power per Line ($t_p=8/20\mu s$)
- Protects four line pairs
- Low capacitance
- Low Leakage Current.
- Low Operating and Clamping Voltages.
- Transient Protection for High Speed Data Lines to
IEC61000-4-2(ESD) $\pm 15kV$ (air), $\pm 8kV$ (Contact)
IEC61000-4-4(EFT) 40A(5/50ns)
IEC61000-4-5(lightning) 24A(8/20us)

Applications

- Ethernet – 10/100/1000 Base T
- WAN/LAN Equipment
- Desktops, Servers, Notebooks & Handhelds, base stations Laser Diode Protection

Absolute Maximum Ratings

Parameter	Symbol	Value	Units
Peak Pulse Power ($t_p = 8/20\mu s$) - See Fig1.	P_{PK}	400	W
Peak Pulse Current ($t_p = 8/20\mu s$)	I_{PP}	24	A
Storage Temperature Range	T_{STG}	-55 to 150	$^{\circ}C$
Operating Junction Temperature Range	T_J	-55 to 150	$^{\circ}C$

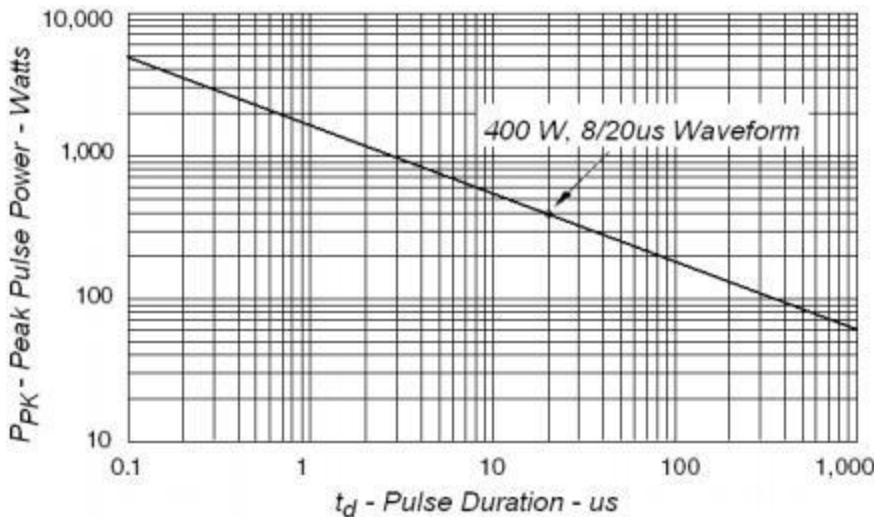


Fig1. Peak Pulse Power VS Pulse Time

Electrical Parameter

Symbol	Parameter
I_{PP}	Peak Pulse Current
V_C	Clamping Voltage @ I_{PP}
V_{RWM}	Reverse Stand-Off Voltage
I_R	Reverse Leakage Current @ V_{RWM}
V_{SB}	Snap-Back Voltage @ I_{SB}
I_{SB}	Snap-Back Current
V_{PT}	Punch-Through Voltage
I_{PT}	Punch-Through Current

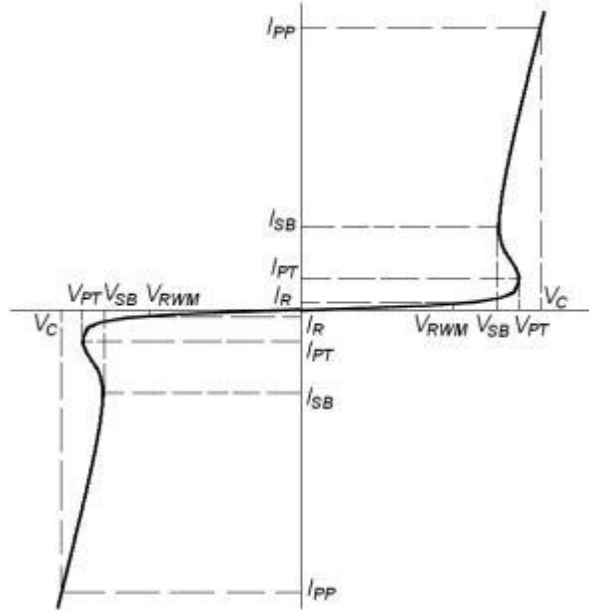


Fig2. SLVU2.8-8 IV Characteristic Curve

Electrical Characteristics

Parameter	Symbol	Conditions	Minimum	Typical	Maximum	Units
Reverse Stand-Off Voltage	V_{RWM}				2.8	V
Punch-Through Voltage	V_{PT}	$I_{PT} = 2\mu A$	3.0			V
Snap-Back Voltage	V_{SB}	$I_{SB} = 50mA$	2.8			V
Reverse Leakage Current	I_R	$V_{RWM} = 2.8V, T = 25^\circ C$ (Each Line)			1	μA
Clamping Voltage	V_C	$I_{PP} = 2A, t_p = 8/20\mu s$ (Each Line)			5.5	V
Clamping Voltage	V_C	$I_{PP} = 5A, t_p = 8/20\mu s$ (Each Line)			8.5	V
Clamping Voltage	V_C	$I_{PP} = 24A, t_p = 8/20\mu s$ (Each Line)			15	V
Junction Capacitance	C_j	$V_R = 0V, f = 1MHz$ (Each Line)		7	10	pF

Typical Characteristics

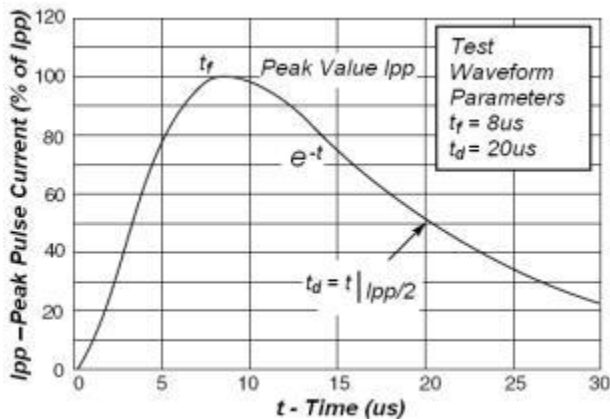


Fig3. Pulse Waveform

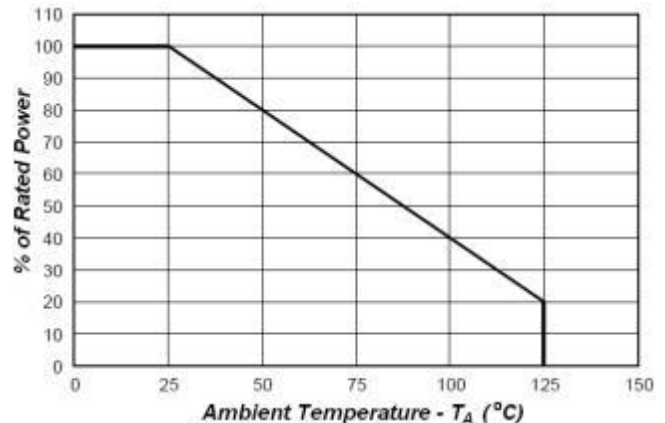
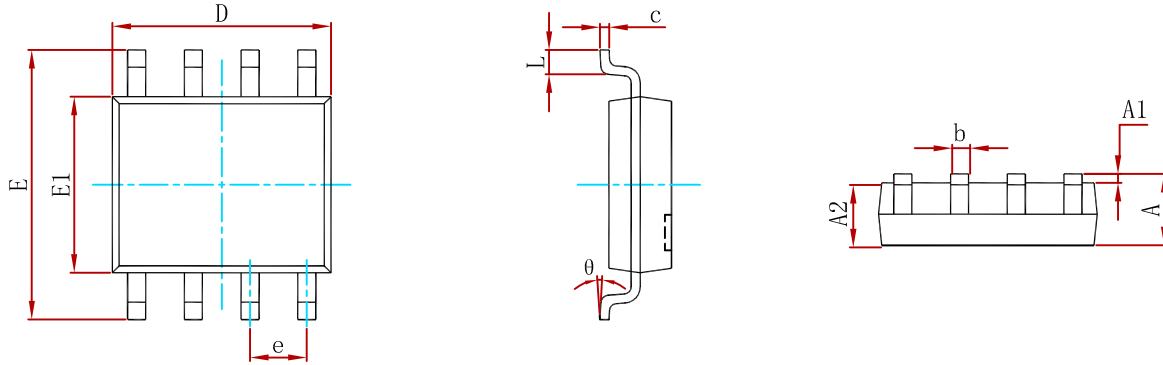


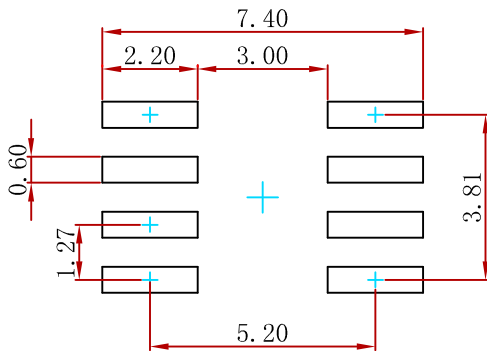
Fig4. Power Derating Curve

PACKAGE MECHANICAL DATA



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	1.350	1.750	0.053	0.069
A1	0.100	0.250	0.004	0.010
A2	1.350	1.550	0.053	0.061
b	0.330	0.510	0.013	0.020
c	0.170	0.250	0.007	0.010
D	4.800	5.000	0.189	0.197
e	1.270 (BSC)		0.050 (BSC)	
E	5.800	6.200	0.228	0.244
E1	3.800	4.000	0.150	0.157
L	0.400	1.270	0.016	0.050
θ	0°	8°	0°	8°

Suggested Pad Layout



- Note:
1. Controlling dimension: in millimeters.
 2. General tolerance: ± 0.05mm.
 3. The pad layout is for reference purposes only.

REEL SPECIFICATION

P/N	PKG	QTY
SLVU2.8-8-MS	SOP-8	2500

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