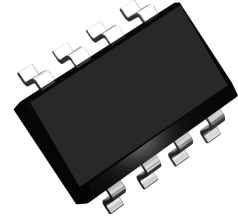


## Features

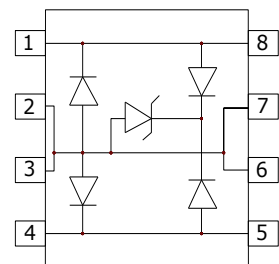
- Protects two I/O lines
- 2000W peak pulse power ( $t_p = 8/20\mu s$ )
- Working voltage: 6V
- Low capacitance (<25pF) for high-speed interfaces
- Solid-state silicon avalanche technology



Package: SOP-8

## Applications

- T1/E1 line cards
- T3/E3 and DS3 interfaces
- STS-1 interfaces
- ISDN S/T-interfaces
- ISDN U-interfaces
- 10/100 ethernet



Schematic Diagram

## Protection solution to meet

- Bellcore1089 (Intra-building) 100A (2/10 $\mu s$ )
- ITU K.20 IPP=40A (5/310 $\mu s$ )
- IEC 61000-4-2 (ESD)  $\pm 15kV$  (air),  $\pm 8kV$  (contact)
- IEC 61000-4-4 (EFT) 40A (5/50ns)
- IEC 61000-4-5 (Lightning) 100A (8/20 $\mu s$ )

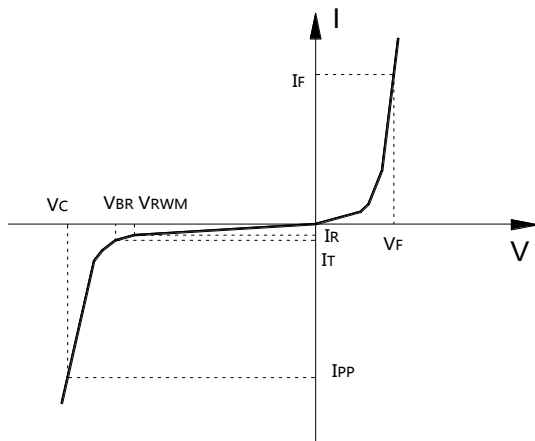
## Absolute Maximum Ratings ( $T_A=25^\circ C$ unless otherwise specified)

Parameter	Symbol	Value	Unit
ESD Rating per IEC61000-4-2:	Contact	8	KV
	Air	15	
Peak Pulse Power ( $t_p=8/20\mu s$ waveform)	$P_{PP}$	2000	W
Peak Pulse Current ( $t_p=8/20\mu s$ waveform)	$I_{PP}$	100	A
Lead Soldering Temperature	$T_L$	260 (10 sec.)	$^\circ C$
Operating Temperature Range	$T_J$	-55 to +150	$^\circ C$
Storage Temperature Range	$T_{STG}$	-55 to +150	$^\circ C$

**Electrical Characteristics** ( $T_A=25^\circ\text{C}$  unless otherwise specified)

Symbol	Parameter	Conditions	Min.	Typ.	Max.	Units
$V_{RWM}$	Reverse Stand-off Voltage	Line to Ground	-	-	6.0	V
$V_{BR}$	Reverse Breakdown Voltage	$I_T = 1\text{mA}$ , Line to Ground	6.0	-	-	V
$I_{RM}$	Reverse Leakage Current	$V_{RWM} = 6\text{V}$ , Line to Ground	-	-	25	$\mu\text{A}$
$V_C$	Clamping Voltage	$I_{PP} = 50\text{A}$ , $t_p = 8/20\mu\text{s}$ Line to Ground	-	-	20	V
		$I_{PP} = 100\text{A}$ , $t_p = 8/20\mu\text{s}$ Line to Ground	-	-	28	V
$C_J$	Junction Capacitance	$V_R = 0\text{V}$ , $f = 1\text{MHz}$ , Between I/O Pins	-	8	12	pF
		$V_R = 0\text{V}$ , $f = 1\text{MHz}$ Any I/O Pin to Ground	-	16	25	pF

Symbol	Parameter
$V_{RWM}$	Working Peak Reverse Voltage
$V_{BR}$	Breakdown Voltage @ $I_T$
$V_C$	Clamping Voltage @ $I_{PP}$
$I_T$	Test Current
$I_{RM}$	Leakage Current at $V_{RWM}$
$I_{PP}$	Peak Pulse Current
$C_O$	Off-state Capacitance
$C_J$	Junction Capacitance





### Typical Characteristic Curves

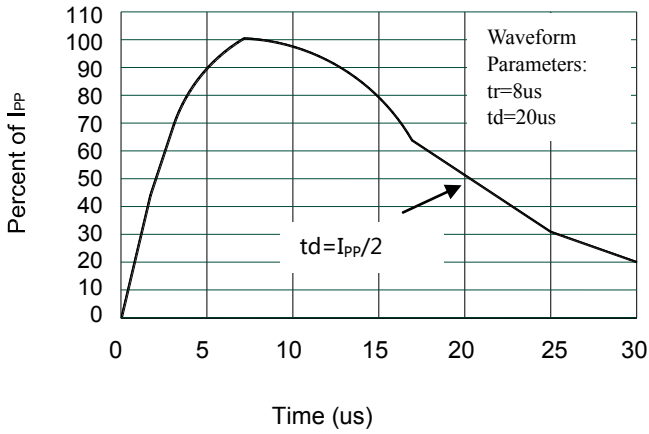


Figure1. Pulse Waveform

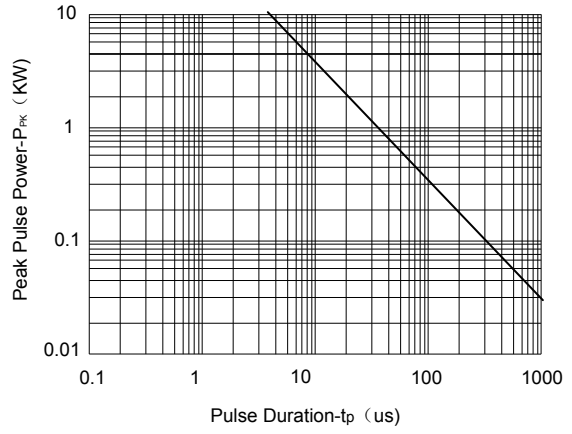


Figure2. Non-Repetitive Peak Pulse Power vs. Pulse Time

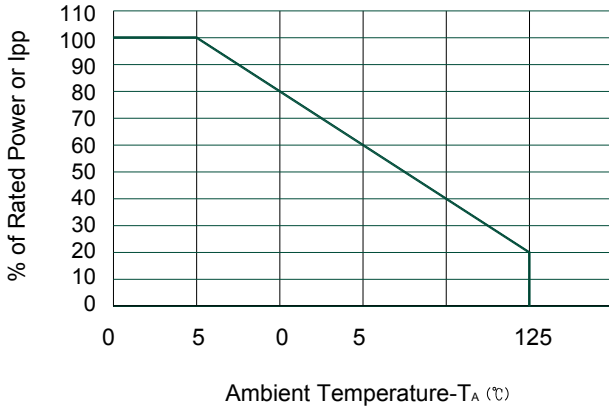


Figure3. Power Derating Curve

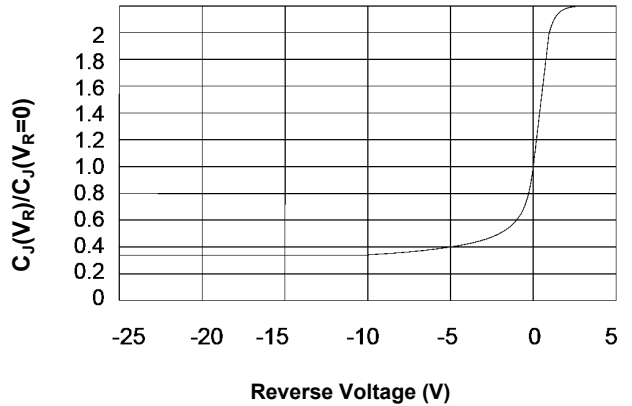
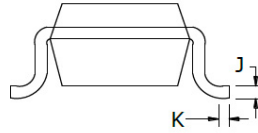
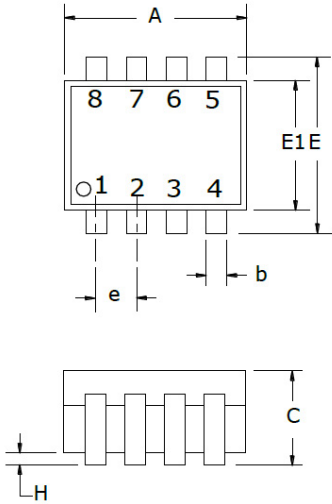


Figure4. Typical Junction Capacitance

**Package information**

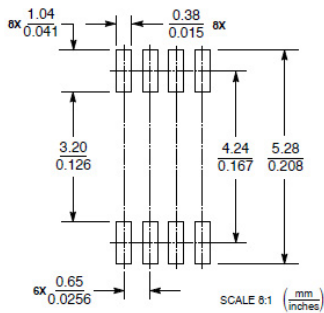
**SOP-8**



DIM	Millimeters		Inches	
	Min	Max	Min	Max
A	4.80	5.00	0.189	0.197
E	6.00(BSC)		0.236(BSC)	
E1	3.80	4.00	0.150	0.157
b	0.33	0.51	0.013	0.020
C	1.35	1.75	0.053	0.069
J	0.17	0.25	0.007	0.010
e	1.27(BSC)		0.05(BSC)	
K	0.40	1.27	0.016	0.050
H	0.10	0.25	0.004	0.010

**Recommended Pad Layout**

Dimensions in mm/inch



**Ordering Information**

Device	Package	Carrier	Quantity	HSF Status
SPLC03-6	SOP-8	Tape & Reel (13")	2500pcs / Reel	RoHS Compliant