

Features

- Protects One Power Line and Four Data Lines
- Low Operating Voltage
- Low Clamping Voltage
- Moisture Sensitivity Level 1
- Epoxy Meets UL 94 V-0 Flammability Rating
- Halogen Free. "Green" Device (Note 1)
- Lead Free Finish/RoHS Compliant ("P" Suffix Designates RoHS Compliant. See Ordering Information)

Maximum Ratings

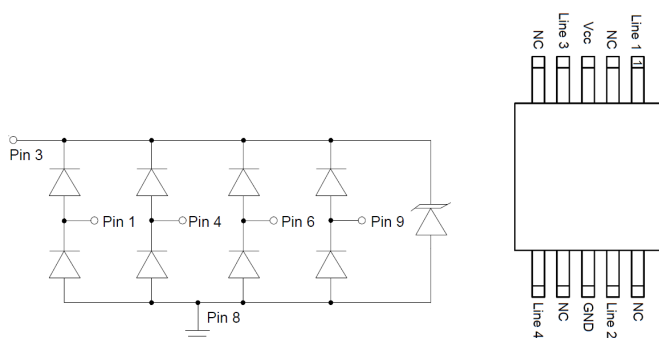
- Operating Junction Temperature Range: -55°C to +125°C
- Storage Temperature Range: -55°C to +150°C

MCC Part Number	Device Marking
ESDLC0514MP	514M

IEC61000-4-2(ESD)	Air Contact	±15KV ±8KV
Peak Pulse Current(8/20µs)	I _{PP}	5A
Peak Pulse Power (8/20µs)	P _{PK}	100W

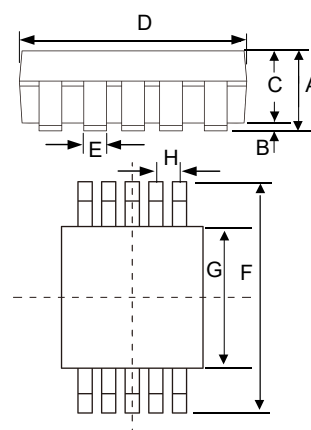
Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

Circuit and Pin Schematic



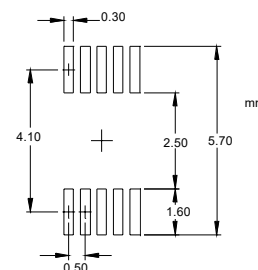
ESD Protection Device

MSOP-10



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	----	0.043	----	1.10	
B	0.000	0.006	0.00	0.15	
C	0.030	0.037	0.75	0.95	
D	0.114	0.122	2.90	3.10	
E	0.007	0.011	0.17	0.27	
F	0.193		4.90		TYP.
G	0.114	0.122	2.90	3.10	
H	0.020		0.50		TYP.

SUGGESTED SOLDER PAD LAYOUT



Electrical Characteristics @ 25°C (Unless Otherwise Specified)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Reverse Working Voltage	V_{RWM}	Any I/O Pin to Ground			5	V
Reverse Breakdown Voltage	V_{BR}	$I_T = 1\text{mA}$, Any I/O Pin to Ground	6			V
Reverse Leakage Current	I_R	$V_{RWM} = 5\text{V}$, Any I/O Pin to Ground			0.5	μA
Clamping Voltage	V_C	$I_{PP} = 1\text{A}$, $t_p = 8/20\mu\text{s}$, Any I/O Pin to Ground			12	V
Clamping Voltage	V_C	$I_{PP} = 5\text{A}$, $t_p = 8/20\mu\text{s}$, Any I/O Pin to Ground			20	V
Junction Capacitance	C_J	$V_R = 0\text{V}$, $f = 1\text{MHz}$, Between I/O Pins		0.3	0.5	pF
Junction Capacitance	C_J	$V_R = 0\text{V}$, $f = 1\text{MHz}$, Any I/O Pin to Ground		0.6	0.8	pF

Curve Characteristics

Fig. 1 - 8 X 20 μ s Pulse Waveform

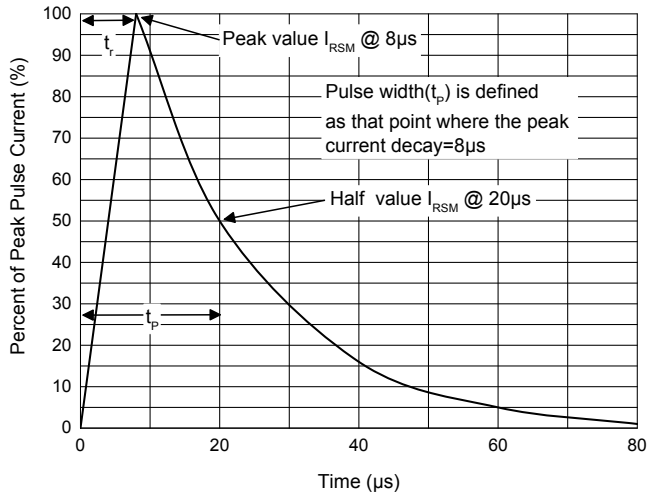


Fig. 2 - Pulse Derating Curve

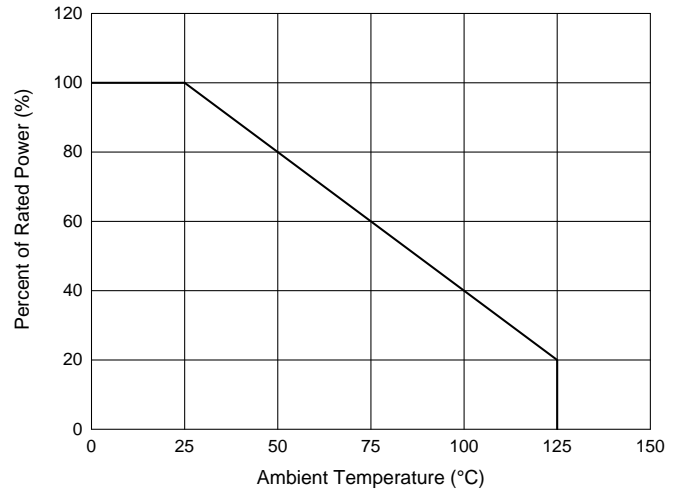


Fig. 3 - Capacitance Characteristics

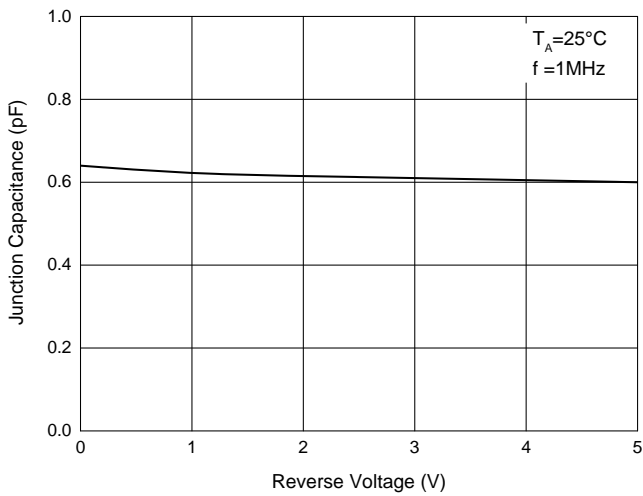
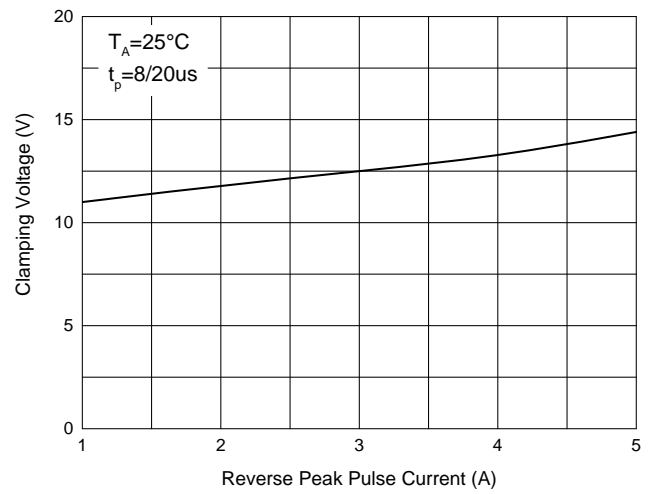


Fig. 4 - Clamping Voltage Characteristics



Ordering Information

Device	Packing
Part Number-TP	Tape&Reel: 3Kpcs/Reel

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