Features

- Ultra Low Capacitance
- Low Operating Voltage
- Low Clamping Voltage
- Protects Three Data Lines
- 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)

ESD Protection Device

Maximum Ratings

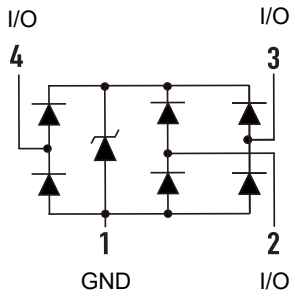
- Operating Junction Temperature Range: -55°C to +125°C
- Storage Temperature Range: -55°C to +150°C

MCC Part Number	Device Marking
LSR05	R0502

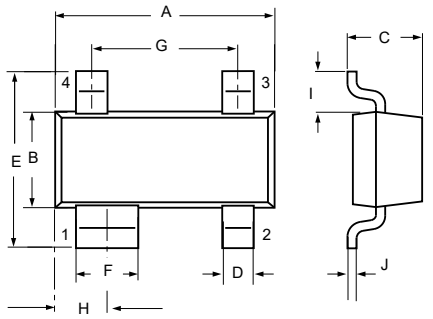
IEC61000-4-2(ESD)	Air Contact	±30KV ±30KV
IEC61000−4−4 (EFT) @5/50ns		40A
Peak Pulse Current(8/20μs)	I_{PP}	5A
Peak Pulse Power (8/20us)	P_{PK}	130W

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

Internal Structure

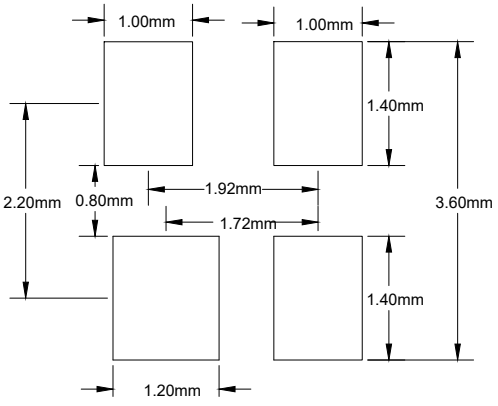


SOT-143



DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.110	0.120	2.80	3.04	
B	0.047	0.055	1.20	1.39	
C	0.031	0.048	0.80	1.22	
D	0.011	0.020	0.30	0.51	
E	0.082	0.104	2.10	2.64	
F	0.029	0.037	0.76	0.94	
G	0.070	0.080	1.78	2.03	
H	0.028	0.033	0.72	0.83	
I	0.015	0.024	0.40	0.60	
J	0.003	0.008	0.08	0.20	

Suggested Solder Pad Layout



Electrical Characteristics @ 25°C (Unless Otherwise Specified)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Reverse Working Voltage	V_{RWM}				5	V
Reverse Breakdown Voltage	V_{BR}	I_T = 1mA	6			V
Reverse Leakage Current	I_R	V_{RWM} =5V		0.005	0.5	μA
Clamping Voltage	V_C	I_{PP}=1A, t_P=8/20μs, Any I/O Pin to Ground			9	V
Clamping Voltage	V_C	I_{PP}=5A, t_P=8/20μs, Any I/O Pin to Ground			12	V
Junction Capacitance	C_J	V_R = 0V, f = 1MHz, Any I/O Pin to Ground			0.8	pF
Junction Capacitance	C_J	V_R = 0V, f = 1MHz, Between I/O Pins		0.3	0.4	pF

Note : I/O Pins are Pin 2 & 3 & 4

Curve Characteristics

Fig. 1 - 8 X 20μs Pulse Waveform

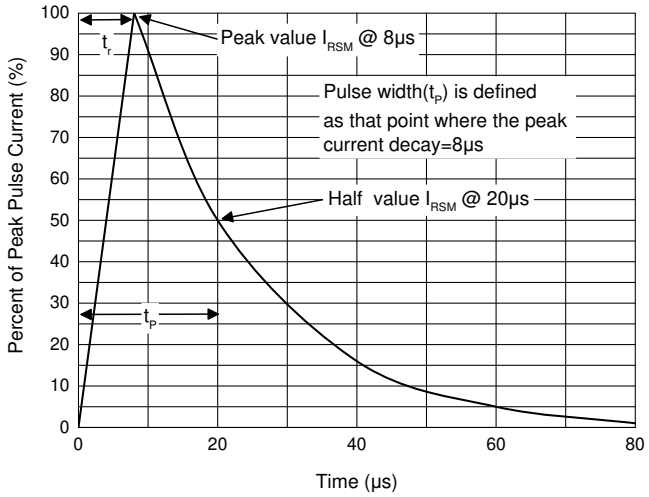


Fig. 2 - Pulse Derating Curve

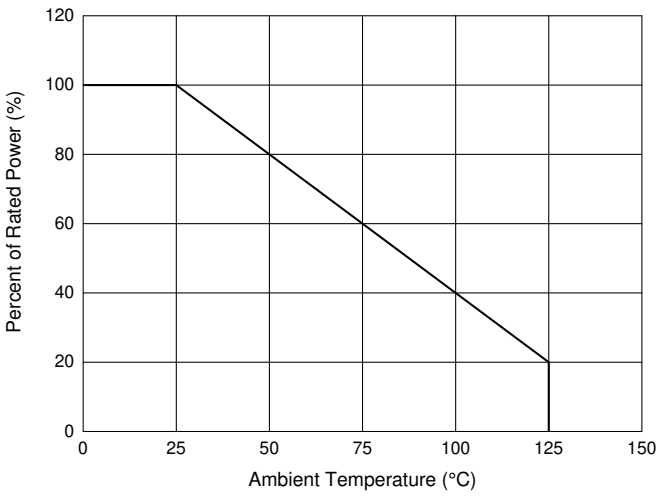


Fig. 3 - Capacitance Characteristics

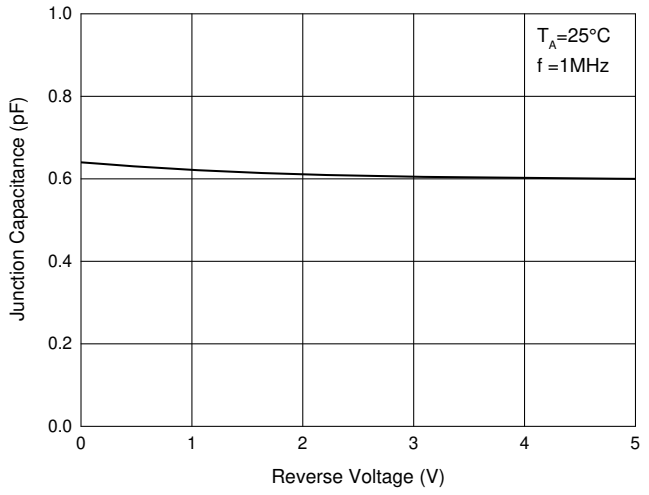
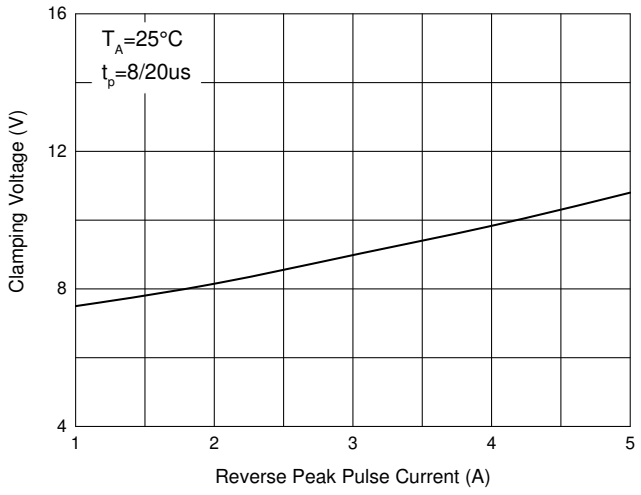


Fig. 4 - Clamping Voltage Characteristics



Ordering Information

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

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