

# SR70

## 70 Volts ESD Protector

### Features

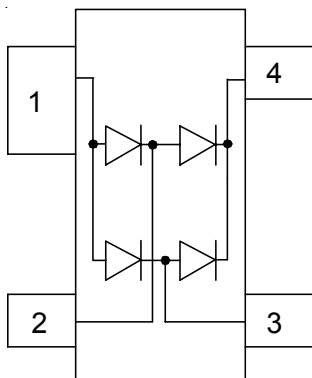
- Halogen free available upon request by adding suffix "-HF"
- IEC 61000-4-5(Lightning) 1kv,24A( 8/20us)
- IEC 61000-4-2(ESD) 15kv(air), 8kv(contact)
- Low Clamping Voltage
- Unidirectional Configuration
- Protects 2 I/O Ports & Power Supply
- Low Capacitance
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1

### Maximum Ratings

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

Parameter	Symbol	Limits	unit
Peak Pulse Current ( $t_p=8/20\mu S$ )	$I_{pp}$	24	A
Rectifier Repetitive Peak Reverse Voltage	$V_{RRM}$	70	V

### Pin Configuration



### SOT-143

The drawing shows the SOT-143 package with dimensions A through J. Pin 1 is on the left, pin 2 on the right, pin 3 on the top right, and pin 4 on the top left. Dimensions include: A (total width), B (height), C (lead length), D (lead width), E (total height), F (pin 1 width), G (pin 3 width), H (total length), I (lead thickness), and J (lead diameter).

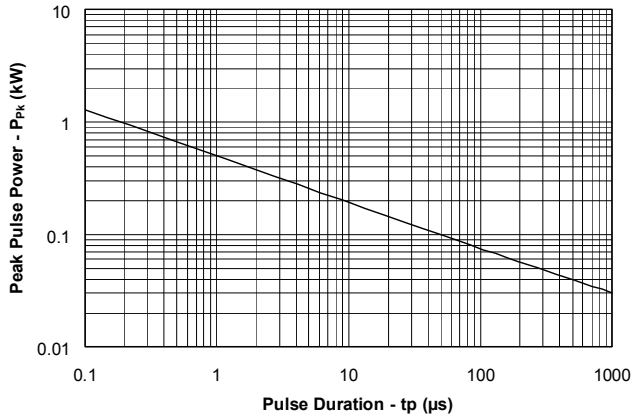
DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.110	.120	2.80	3.04	
B	.047	.055	1.20	1.39	
C	.033	.045	0.84	1.14	
D	.015	.020	0.39	0.50	
E	.083	.098	2.11	2.48	
F	.031	.037	0.79	0.93	
G	.070	.080	1.78	2.03	
H	.028	.033	0.72	0.83	
I	.018	.024	0.46	0.60	
J	.003	.006	0.08	0.15	

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

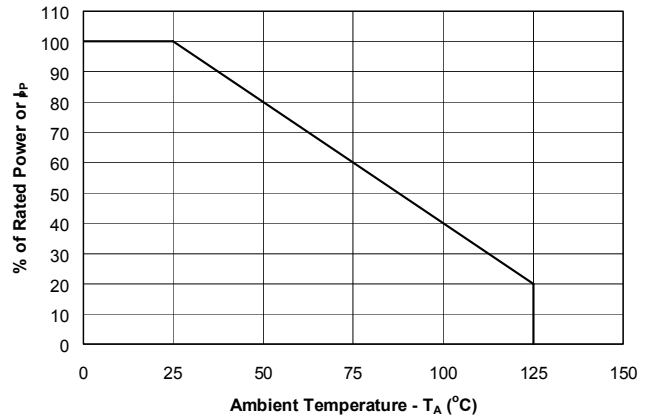
<b>SR70</b>						
<b>Parameter</b>	<b>Symbol</b>	<b>Conditions</b>	<b>Minimum</b>	<b>Typical</b>	<b>Maximum</b>	<b>Units</b>
Peak Reverse Stand-Off Voltage	$V_{RRM}$				70	V
Reverse Breakdown Voltage	$V_{BR}$	$I_t = 50\mu A$	85			V
Reverse Leakage Current	$I_R$	$V_{RWM} = 70V, T=25^\circ C$			5	$\mu A$
Forward Clamping Voltage	$V_{FC}$	$I_{PP} = 1A, t_p = 8/20\mu s$			1.5	V
Forward Clamping Voltage	$V_{FC}$	$I_{PP} = 10A, t_p = 8/20\mu s$			3.3	V
Forward Clamping Voltage	$V_{FC}$	$I_{PP} = 24A, t_p = 8/20\mu s$			7	V
Junction Capacitance	$C_j$	Between I/O pins and Ground $V_R = 0V, f = 1MHz$		5	10	pF
		Between I/O pins $V_R = 0V, f = 1MHz$		3		pF

## Typical Characteristics

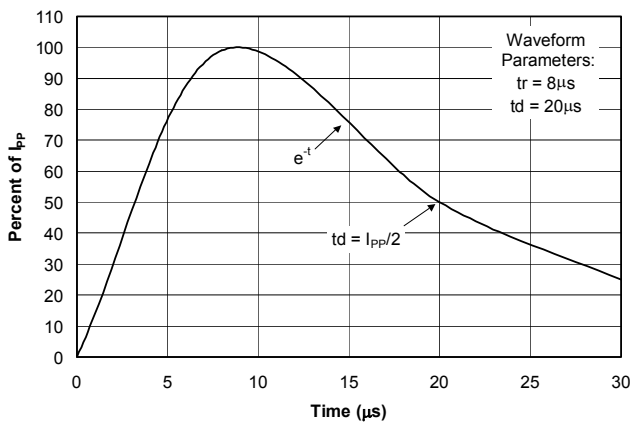
### Non-Repetitive Peak Pulse Power vs. Pulse Time



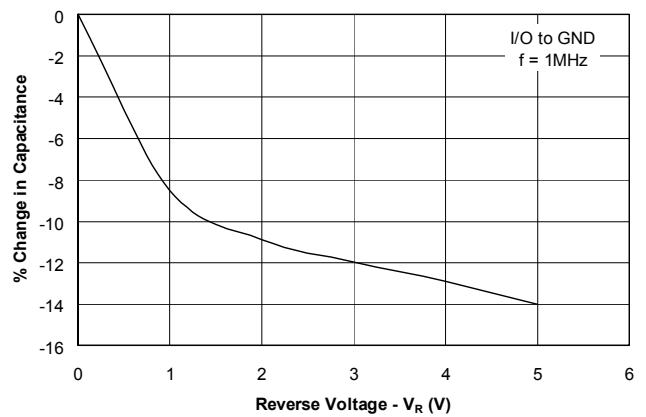
### Power Derating Curve



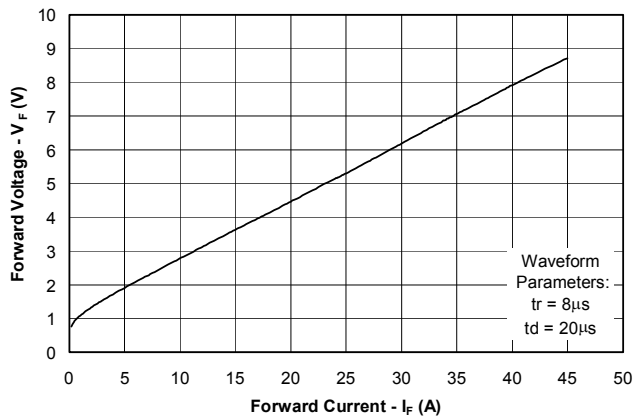
### Pulse Waveform



### Capacitance vs. Reverse Voltage



### Forward Voltage vs. Forward Current





Micro Commercial Components

Ordering Information :

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

Note : Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

\*\*\*IMPORTANT NOTICE\*\*\*

Micro Commercial Components Corp. reserves the right to make changes without further notice to any product herein to make corrections, modifications , enhancements , improvements , or other changes . Micro Commercial Components Corp . does not assume any liability arising out of the application or use of any product described herein; neither does it convey any license under its patent rights ,nor the rights of others . The user of products in such applications shall assume all risks of such use and will agree to hold Micro Commercial Components Corp . and all the companies whose products are represented on our website, harmless against all damages.

\*\*\*LIFE SUPPORT\*\*\*

MCC's products are not authorized for use as critical components in life support devices or systems without the express written approval of Micro Commercial Components Corporation.

\*\*\*CUSTOMER AWARENESS\*\*\*

Counterfeiting of semiconductor parts is a growing problem in the industry. Micro Commercial Components (MCC) is taking strong measures to protect ourselves and our customers from the proliferation of counterfeit parts. MCC strongly encourages customers to purchase MCC parts either directly from MCC or from Authorized MCC Distributors who are listed by country on our web page cited below. Products customers buy either from MCC directly or from Authorized MCC Distributors are genuine parts, have full traceability, meet MCC's quality standards for handling and storage. MCC will not provide any warranty coverage or other assistance for parts bought from Unauthorized Sources. MCC is committed to combat this global problem and encourage our customers to do their part in stopping this practice by buying direct or from authorized distributors.

