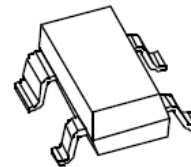


**TVS ARRAY SERIES**

**FEATURES**

- ✓ Protects 3.3, 5, 12, 15, 24 V Components
- ✓ Bidirectional
- ✓ Ultra Low Capacitance 3 Pf
- ✓ Ultra Low Leakage
- ✓ Provides Electrically Isolated Protection
- ✓ 500 W @ 8/20  $\mu$ s
- ✓ Protects 1 Line
- ✓ SOT-143 Packaging
- ✓ This is a Pb - Free Device
- ✓ All SMC parts are traceable to the wafer lot
- ✓ Additional testing can be offered upon request

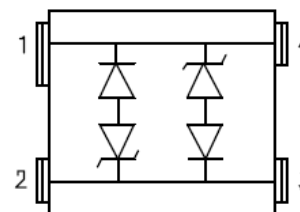
**SOT-143**



**DESCRIPTION**

The S43LCC04XX series of TVS array have been designed to provide bidirectional protection for sensitive electronics from damage due to voltage transients caused by electrostatic discharge (ESD), electrical fast transients (EFT), secondary lightning and other voltage-induced transient events. The device can be used to protect 1 bidirectional data line or interface line.

**SCHEMATIC & PIN CONFIGURATION**



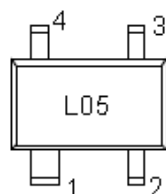
**APPLICATION**

- ✓ WAN/LAN Equipment
- ✓ Cellular phone
- ✓ Notebooks, Desktops, & Servers
- ✓ Audio/Video Inputs
- ✓ Handheld Electronics
- ✓ FireWire, SCSI & **USB** interfaces

**MECHANICAL CHARACTERISTICS**

- ✓ SOT-143 Surface Mount Package
- ✓ Approximate Weight: 0.03 grams
- ✓ PIN #1 Indicator: DOT on top of package
- ✓ Packaging: Tape and Reel Per EIA 481

**MARKING DIAGRAM**

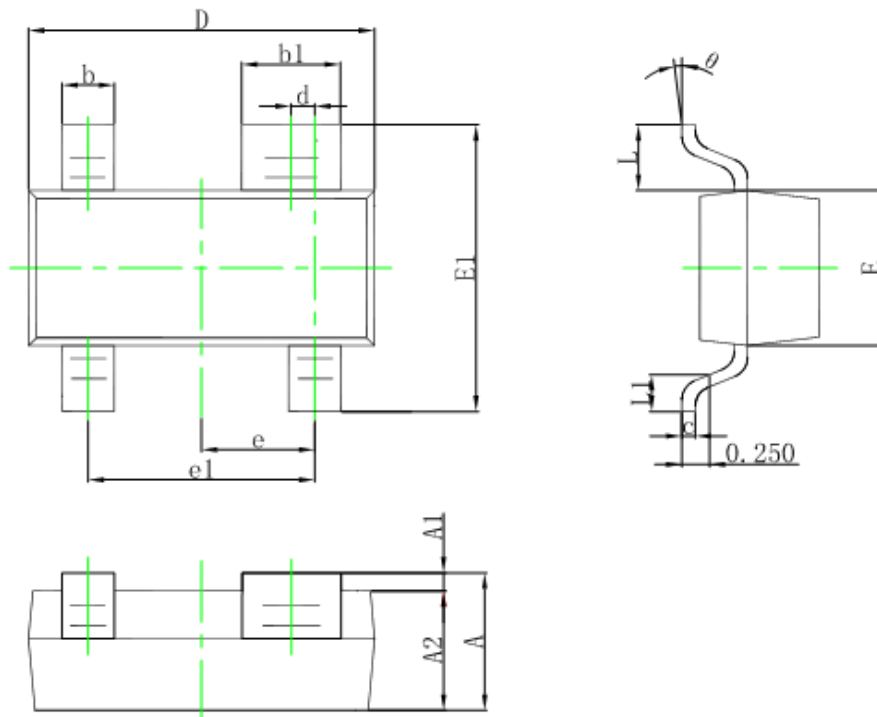


S43LCC0405

L05 = Part Name

**Cautions:** Molding resin  
Epoxy resin UL: 94V-0

PACKAGE OUTLINES & DEMENSIONS



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	0.900	1.150	0.035	0.045
A1	0.000	0.100	0.000	0.004
A2	0.900	1.050	0.035	0.041
b	0.300	0.500	0.012	0.020
b1	0.750	0.900	0.030	0.035
c	0.080	0.150	0.003	0.006
D	2.800	3.000	0.110	0.118
d	0.200 TYP.		0.008 TYP.	
E	1.200	1.400	0.047	0.055
E1	2.250	2.550	0.089	0.100
e	0.950 TYP.		0.037 TYP.	
e1	1.800	2.000	0.071	0.079
L	0.550 REF.		0.022 REF.	
L1	0.300	0.500	0.012	0.020
θ	0°	8°	0°	8°

SOT-143(CJ)

**Ordering Information:**

Device	Package	Shipping
S43LCC0403 THRU S43LCC0424	SOT-143 (Pb-Free)	3000pcs / reel

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specification.

**ABSOLUTE MAXIMUM RATINGS**

Symbol	Parameter	Value	Unit
P	Peak Pulse Power, 8/20 $\mu$ s Waveshape	500	W
T <sub>J</sub>	Operating Temperature	-55 to +125	$^{\circ}$ C
T <sub>STG</sub>	Storage Temperature	-55 to +150	$^{\circ}$ C
T <sub>L</sub>	Lead Soldering Temperature	260 (10 Sec.)	$^{\circ}$ C

**ELECTRICAL CHARACTERISTICS @ 25  $^{\circ}$ C**

Part Number	Stand-off Voltage $V_{wm}$ (V) Max	Breakdown Voltage $V_{BR}$ @1mA (V) Min	Clamping Voltage $V_c$ @ 1 A (V) Max	Leakage Current $I_R$ @ $V_{wm}$ ( $\mu$ A) Max	Capacitance (f = 1 MHz) C @ 0V (pF) Max	Temperature Coefficient of $V_{BR}$ $a(V_{BR})$ mV/ $^{\circ}$ C Max
S43LCC0403	3.3	4	8	200	15	-5
S43LCC0405	5.0	6	10.8	40	15	1
S43LCC0412	12.0	13.3	19	1	15	8
S43LCC0415	15.0	16.7	24	1	15	11
S43LCC0424	24.0	26.7	43	1	15	28

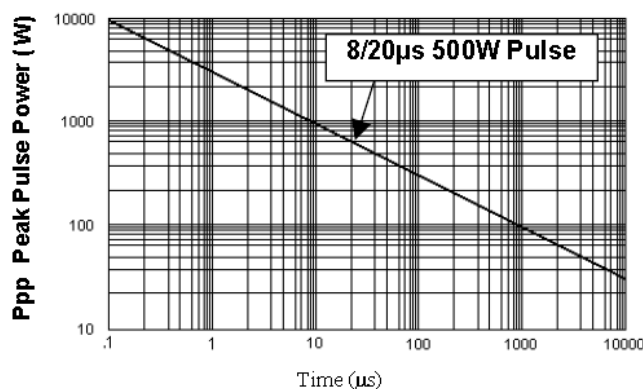


Figure 1. Peak Pulse Power Vs Pulse Time ( $\mu$ s)

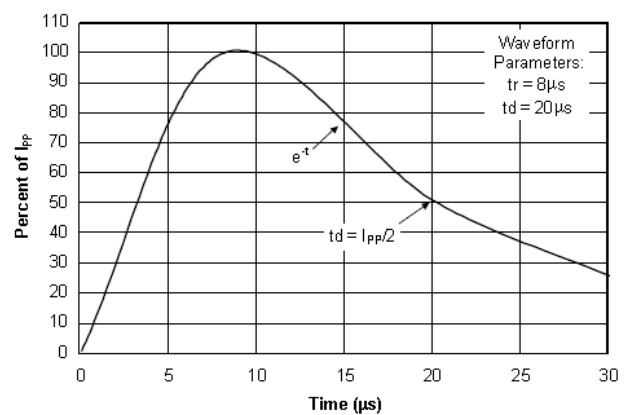


Figure 2. Pulse Wave Form

- China - Germany - Korea - Singapore - United States •
- <http://www.smc-diodes.com> - [sales@smc-diodes.com](mailto:sales@smc-diodes.com) •



**S43LCC0403  
THRU  
S43LCC0424**

**Technical Data  
Data Sheet N1448, Rev. A**

***Green Products***

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