



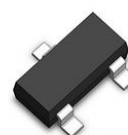
SOT23-3L SOT-23 Package ESD Array SM712 TVS Diode Protection Of RS485 Transceivers

Our Product Introduction

for more products please visit us on socaydiode.com

Basic Information

- Place of Origin: Shenzhen Guangdong China
- Brand Name: SOCAY
- Certification: REACH RoHS ISO
- Model Number: SM712
- Minimum Order Quantity: 3000PCS
- Price: Negotiable
- Delivery Time: 5-8 work days



Product Specification

- Name: ESD Arrays
- Package: SOT23-3L
- Vrwm (Max.): 7V/12V
- Vbr (Min.): 7.5V/13.3V
- Ir (Max.): 1μA
- It: 1mA
- Vc (Max.) (Ipp=12A/17A): 35V/22V
- Cj (Max.) (Vr=0V): 75pF
- Cj (Typ.) (Vr=Vrwm): 45pF
- Polarity: Bi-directional
- Highlight: SOT23-3L ESD Array, SOT-23 ESD Array, SM712 TVS Diode



More Images



Product Description

SOT23-3L SOT-23 Package ESD Arrays SM712 Protection Of RS485 Transceivers

ESD Arrays DATASHEET: [SM712_v2108.1.pdf](#)

ESD Arrays Features:

400 watts peak pulse power ($t_p=8/20\mu s$)
 Protects two -7V to +12V lines
 Low capacitance
 Low clamping voltage
 Solid-state silicon avalanche technology

IEC Compatibility (EN61000-4):

IEC 61000-4-2 (ESD) $\pm 15kV$ (air), $\pm 8kV$ (contact)
 IEC 61000-4-4 (EFT) 40A (5/50ns)

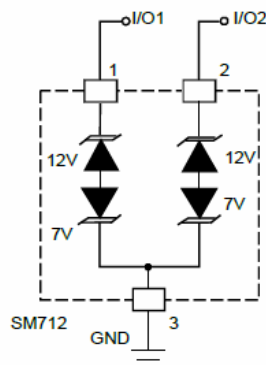
ESD Arrays Applications:

Protection of RS-485 transceivers with extended common-mode range
 Security systems
 Automatic Teller Machines
 HFC systems
 Networks

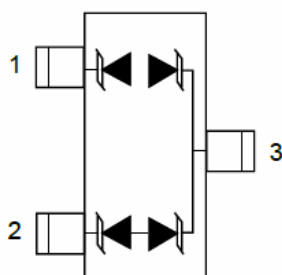
ESD Arrays Mechanical Characteristics:

JEDEC SOT-23 package
 Molding compound flammability rating : UL 94V-0
 Packaging : Tape and Reel per EIA 481
 Quantity Per Reel : 3,000pcs

ESD Arrays Circuit Diagram:



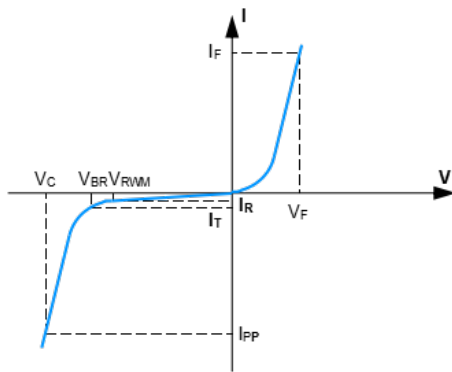
ESD Arrays Schematic & PIN Configuration:



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

Rating	Symbol	Value	Units
Peak Pulse Power ($t_p=8/20\mu s$)	PPP	400	W
Lead Soldering Temperature	TL	260 (10 sec.)	
Peak Pulse Current ($t_p=8/20\mu s$)	I _{PP}	17/12	A
Operating Temperature	T _J	-55 to +125	
Storage Temperature	T _{STG}	-55 to +150	

I-V Curve Characteristics:

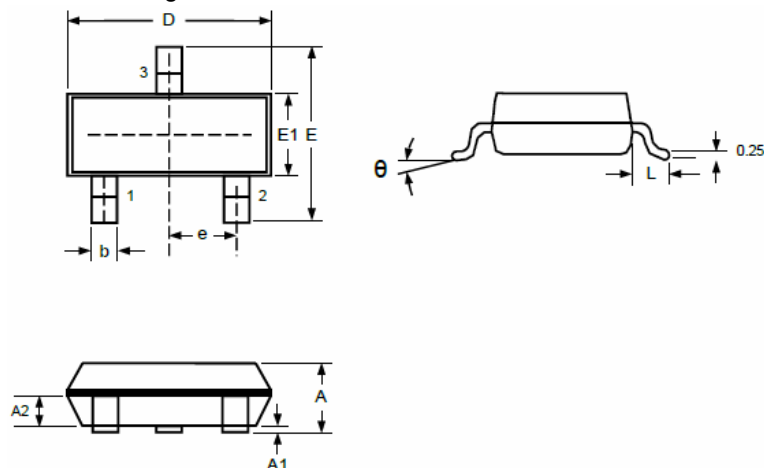


Symbol	Parameter
I_{PP}	Maximum Reverse Peak Pulse Current
V_C	Clamping Voltage @ I_{PP}
V_{RWM}	Working Peak Reverse Voltage
I_R	Maximum Reverse Leakage Current @ V_{RWM}
V_{BR}	Breakdown Voltage @ I_T
I_T	Test Current
I_F	Forward Current
V_F	Forward Voltage @ I_F

ESD Arrays Diode Electrical Characteristics (TA = 25 unless otherwise specified):

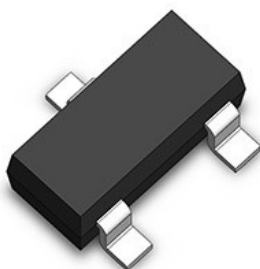
Parameter	Symbol	Conditions	Pins 1 to 3 and 2 to 3 (12V TVS)			Pins 3 to 1 and 3 to 2 (7V TVS)			Units
			Min	Typ	Max	Min	Typ	Max	
Reverse Stand-Off Voltage	V_{RWM}	Pin 3 to 1 or Pin 2 to 1	--	--	12	--	--	7	V
Reverse Breakdown Voltage	V_{BR}	$I_T = 1\text{mA}$	13.3	--	--	7.5	--	--	V
Reverse Leakage Current	I_R	$V_R = V_{RWM}$	--	--	1	--	--	1	μA
Clamping Voltage	V_C	$I_{PP} = 12\text{A}$, $t_p = 8/20\mu\text{s}$	--	30	35	--	--	--	V
		$I_{PP} = 17\text{A}$, $t_p = 8/20\mu\text{s}$	--	--	--	--	18	22	V
Junction Capacitance	C_j	$V_R = 0\text{V}$, $f = 1\text{MHz}$	--	--	75	--	--	75	pF
		$V_R = V_{RWM}$, $f = 1\text{MHz}$	--	45	--	--	45	--	pF

SO23-3L Package Outline & Dimensions:



Symbol	Millimeters		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
D	2.800	3.000	0.110	0.118
b	0.300	0.500	0.012	0.020
E	2.250	2.550	0.089	0.100
E1	1.200	1.400	0.047	0.055
e	0.950 BSC		0.037 BSC	
L	0.300	0.500	0.012	0.020
θ	0°	8°	0°	8°



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