ESD Protection Array

DESCRIPTIONS

- The ESDH35V0U are designed by TVS array that is to protect sensitive electronics from damage or latch-up due to ESD.
- They are designed for use in applications where board space is at a premium.
- ESDH35V0U will protect up to five lines, and may be used on lines where the signal polarities swing above and below ground.
- ESDH35V0U offer desirable characteristics for board level protection including fast response time, low operating and clamping voltage, and no device degradation.
- ESDH35V0U may be used to meet the immunity requirements of IEC 61000-4-2, level 4.
- The small SOT-523 package makes them ideal for use in portable electronics such as cell phones, PDA's, notebook computers and digital cameras.

FEATURES

- Transient protection for data lines to IEC 61000-4-2 (ESD) ±15kV (air), ±8kV (contact) IEC 61000-4-4 (EFT) 40A (5/50ns)
- Protects five I/O lines
- Working voltage : 5V
- Low leakage current
- Low operating and clamping voltages

APPLICATIONS

- Cellular Handsets and Accessories
- Cordless Phone
- PDA
- Notebooks and Handhelds
- Portable Instrumentation
- Digital Cameras
- MP3 Player

ABSOULTE MAXIMUM RATINGS

(T_A=25℃ Unless otherwise noted)

Parameter	Symbol	Typical	Unit
Peak Pulse Power (tp = 8/20 μs)	Ppk	100	W
Maximum Peak Pulse Current (tp = 8/20 μs)	Ipp	8	A
ESD per IEC 61000 – 4 – 2 (Air)	Vpp	±15	KV
ESD per IEC 61000 – 4 – 2 (Contact)	Vpp	±8	KV
Operating Junction Temperature	T_J	-55 ~ 125	℃
Storage Temperature Range	T_{STG}	-55 ~ 150	℃
Lead Soldering Temperature	T_L	260 (10sec)	℃

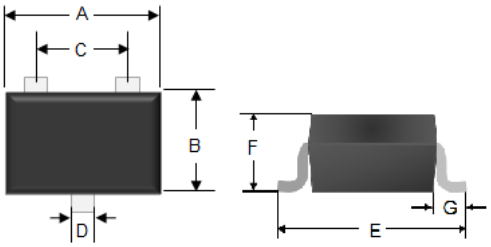
ELECTRICAL CHARACTERISTICS

(T_A=25℃ Unless otherwise noted)

Parameter	Symbol	Condition	Min.	Typ	Max.	Unit
Reverse Stand – Off Voltage	V_{RWM}				5	V
Reverse Breakdown Voltage	V_{BR}	It = 1mA	6		7.6	V
Reverse Leakage Current	I_R	V_{RWM} = 5V , T=25℃			1	μA
Forward Voltage	V_F	I_F=10mA			1.0	V
Clamping Voltage	V_C	Ipp =8A , tp = 8/20 μs			13	V
Junction Capacitance	Cj	Between I/O Pin and GND V_R = 0V , f = 1MHz			60	pF

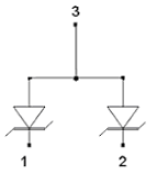
ESD Protection Array

SOT-523 PACKAGE OUTLINE

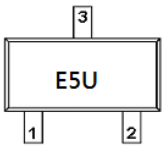


Dimension	Unit (mm)		Unit (inch)	
	Min	Max	Min	Max
A	1.50	1.70	0.059	0.067
B	0.75	0.85	0.030	0.033
C	0.90	1.10	0.035	0.043
D	0.15	0.32	0.006	0.013
E	1.45	1.75	0.057	0.069
F	0.70	0.90	0.028	0.035
G	0.56 Ref		0.022 Ref	

PIN CONFIGURATION



PART MARKING



ORDERING INFORMATION

Part Number	Package	Part Marking	Packing
ESDH35V0U	SOT-523	E5U	3000 Pcs/7" Reel

ESD Protection Array

TYPICAL CHARACTERISTICS

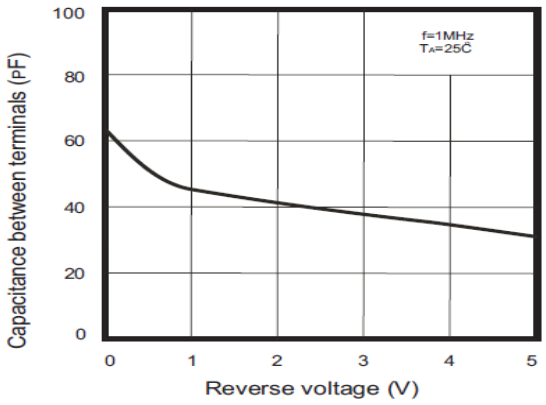


Fig 1 : Junction Capacitance V.S Reverse Voltage Applied

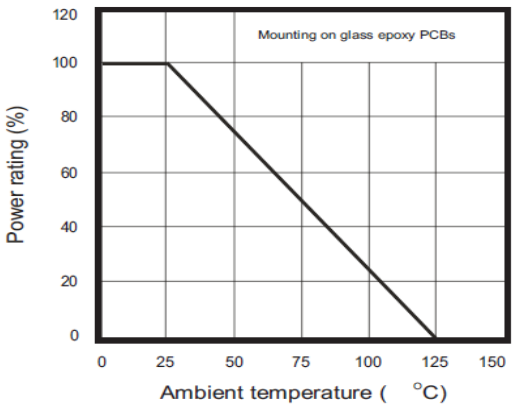


Fig 2 : Peak Plus Power V.S Exponential Plus Duration

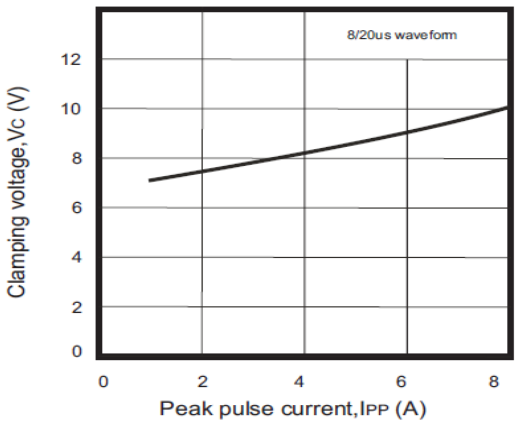


Fig 3 : Clamping Voltage VS Peak Pulse Current

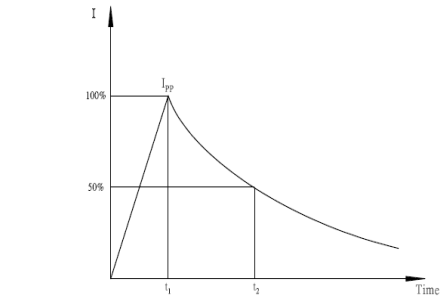


Fig 4 : Forward Voltage Drop V.S Peak Forward Current