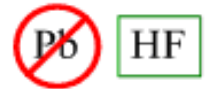


## LESD5D Series

### Micro-Package Diode for ESD Protection



#### DESCRIPTION

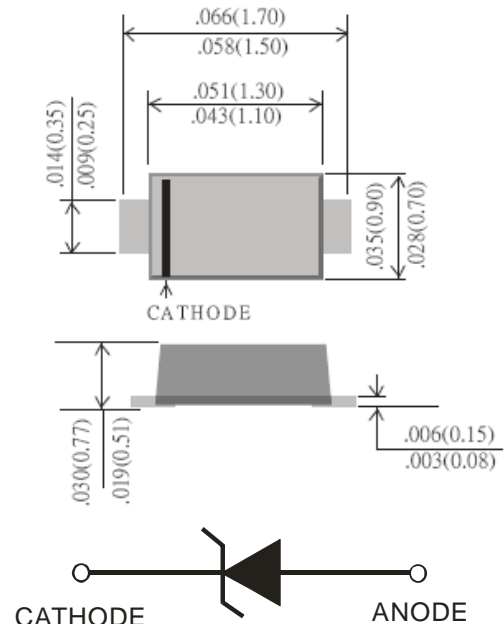
The Li-sion's model LESD5D series device provides ESD for high speed I/O channel, to protection for the external ports of table electronic device such as cell phones, handled electronic and personal computers. The ESD protection provided by the component enables a data port to withstand a minimum  $\pm 30\text{KV}$  contact and  $\pm 30\text{KV}$  air discharge per the ESD test method specified in IEC61000-4-2.

#### FEATURES

- 240W Peak Pulse Power per line (tp=8/20  $\mu\text{S}$  waveform)
- Very low leakage current ,maximum of 0.1uA @  $V_{\text{RWM}}$
- IEC61000-4-2(ESD):Contact  $\pm 30\text{KV}$ , Air  $\pm 30\text{KV}$
- IEC61000-4-4(EFT):40A-5/50  $\mu\text{S}$
- IEC61000-4-5(Surge):12A, 8/20  $\mu\text{S}$   
Level 1(line-ground)&Level 2(line-line)

#### MECHANICAL DATA

- Case: Molded, SOD-523
- Leads: Lead free, solder able Per MIL-STD-202, method 208
- Polarity: Cathode indicated by color band



SOD-523

#### MAXIMUM RATINGS (RATINGS AT 25°C AMBIENT TEMPERATURE UNLESS OTHERWISE SPECIFIED)

PARAMETER	SYMBOL	VALUE	UNIT
Maximum forward voltage drop at $I_F=15\text{mA}$	$V_F$	1	V
Thermal resistance	Junction-Ambient	$R_{\theta JA}$	340
	Junction-Case	$R_{\theta JC}$	175
Peak pulse power	$P_{PP}$	240	W
Storage temperature range	$T_{STG}$	-55 TO +150	$^{\circ}\text{C}$
Operating temperature range	$T_J$	-55 TO +150	$^{\circ}\text{C}$

Note 1: For 8/20uS waveform

LESD5D Series

**ELECTRICAL CHARACTERISTICS** (RATINGS AT 25°C AMBIENT TEMPERATURE UNLESS OTHERWISE SPECIFIED)

Part Number	Marking	$V_{RWM}$	$I_R$	$V_{BR}$	$V_C$	$I_{PP}$	$C_J$	$I_T$	$P_{PK}$
		MAX.	@ $V_{RWM}$ MAX.	@ $I_T$ MIN.	@ $I_{PP}$ MAX.	MAX.	TYP.		MAX.
		V	$\mu A$	V	V	A	pf	mA	W
240W ESD PROCTION									
LESD5D2V5	Z17	2.5	6.0	4.0	10.9	11.0	145	1.0	120
LESD5D3V3	Z3	3.3	0.05	5.0	14.1	11.2	105	1.0	158
LESD5D5V	Z5	5.0	0.05	6.2	18.6	9.4	80	1.0	174
LESD5D6V	Z6	6.0	0.01	6.8	20.5	8.8	70	1.0	181
LESD5D7V	Z7	7.0	0.01	7.5	22.7	8.8	65	1.0	200
LESD5D12V	Y4	12	0.01	14.1	25	9.6	55	1.0	240

## LESD5D Series

### RATINGS & ELECTRICAL CHARACTERISTICS CURVES

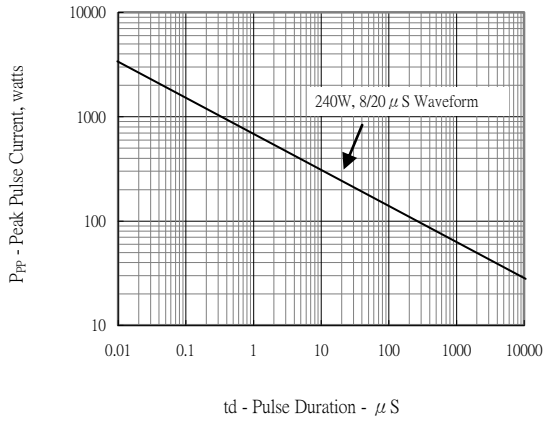


FIG.1 PEAK PULSE POWER v.s. PULSE TIME

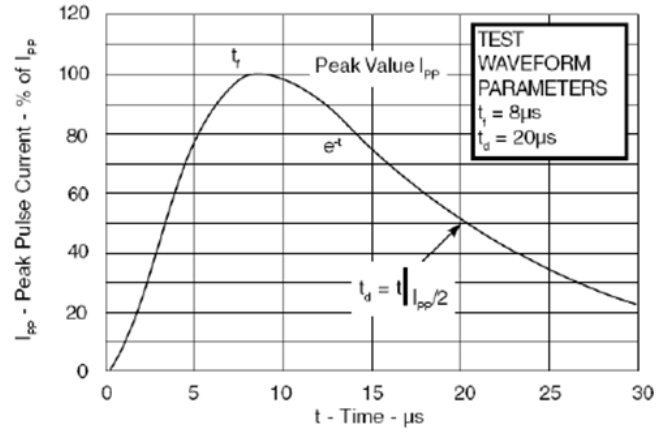


FIG.2 PAUSE WAVE FORM

IEC 61000-4-2 Spec.

Level	Test Voltage (kV)	First Peak Current (A)	Current at 30 ns (A)	Current at 60 ns (A)
1	2	7.5	4	2
2	4	15	8	4
3	6	22.5	12	6
4	8	30	16	8

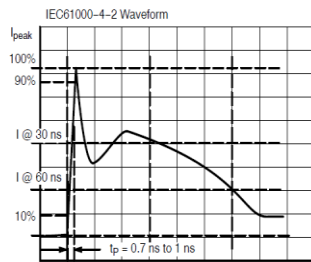


FIG.3 IEC6100-4-2 SPEC

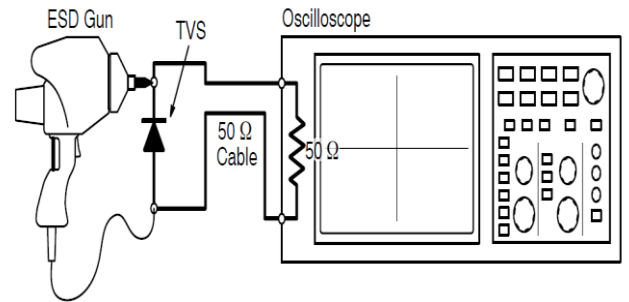


FIG.4 DIAGRAM OF ESD TEST SETUP

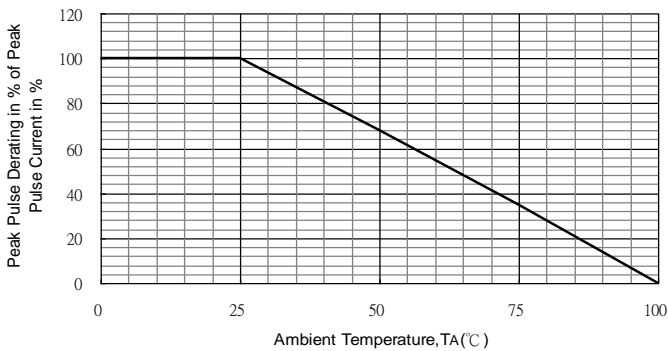


FIG.5 POWER DERATING CURVE

## LESD5D Series

### ORDERING INFORMATION

Part Number	Package	Shipping
LESD5Dxx□	SOD-523	Tape Reel

**Notes:**

- : None is for Lead Free package;  
"G" is for Halogen Free package.

### PACKAGE OUTLINE AND RECOMMEND FOOTPRINT DIMENSIONS

Unit : Inch (Millimeter)

