Discription

The HRSB6.8CMGJT2N 8K/R protects sensitive semiconductor components from damage or upset due to electrostatic discharge (ESD) and other voltage induced transient events.

Excellent clamping capability, low leakage, low capacitance, and fast response time provide best in class protection on designs that are exposed to ESD.

It gives designer the flexibility to protect one bi-directional line in applications where arrays are not practical.



SOD-923

Features

★ Ultra Low Capacitance 15 pF
★ Low Clamping Voltage
★ Small Body Outline Dimensions:
0.031″ x 0.024″ (0.80 mm x 0.60 mm)
★ Low Body Height: 0.015″ (0.37 mm)
★ Stand−off Voltage: 5 V
★ Low Leakage
★ Response Time is Typically < 1.0 ns
★ IEC61000−4−2 Level 4 ESD Protection
★ This is a Pb−Free Device



Circuit Diagram

Orderingin formation

Product ID	Pack	Qty(PCS)
HRSB6.8CMGJT2N 8K/R	SOD-923	8000

Absolute Ratings(Tamb = 25°C)

Symbol	Parameter	Value	Units
P_{PP}	Peak Pulse Power (t_p = 8/20 μ s)	80	W
T_L	Maximum lead temperature for soldering during 10s	260	°C
T_{stg}	Storage Temperature Range	-55 to +155	°C
T_{op}	Operating Temperature Range	-40 to +125	°C
T_j	Maximum junction temperature	150	°C
	IEC61000-4-2 (ESD) air discharge contact discharge	±25 ±25	KV

Stresses exceeding Maximum Ratings may damage the device. Maximum Rating are stress ratings only. Functional operation above the Recommended Operating Conditions is not implied. Extended exposure to stresses above the Recommended Operating Conditions may affect device reliability.

1. FR-5 = 1.0*0.75*0.62 in.

Electrical Characteristics (T_A = 25°C unless otherwise noted)

Device	V_{RWM} (V)	I_R (μA) @ V_{RWM}	V_{BR} (V) @ I_T (Note 2)	I_T	C (pF)	V_C (V) @ I_{PP} = 5 A	Ipp (A)	Ppk (W) (8*20 μS)
	Max	Max	Min	mA	Typ	Max	Max	Max
HRSB6.8CMGJT2N 8K/R	5.0	0.1	5.6	1.0	15	8.5	8	80

2. V_{BR} is measured with a pulse test current I_T at an ambient temperature of 25°C.

Typical Characteristics

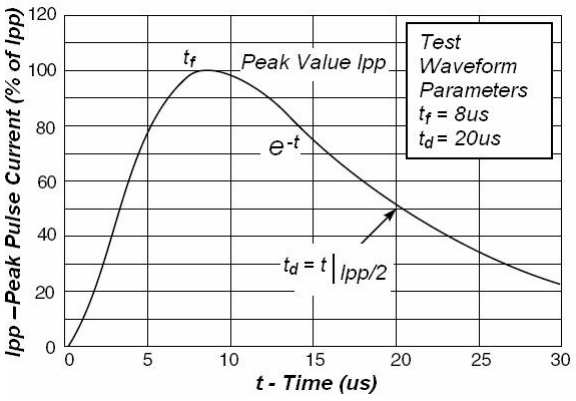


Fig1. IEC61000-4-5 Waveform

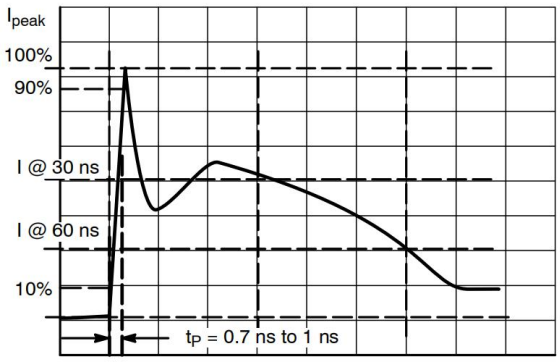
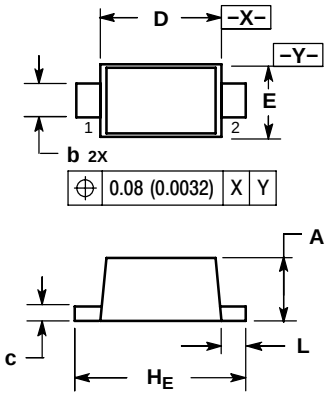


Fig2.IEC61000-4-2 Waveform

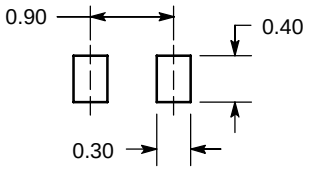
SOD-923 Outline And Dimensions



NOTES:
1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
2. CONTROLLING DIMENSION: MILLIMETERS.
3. MAXIMUM LEAD THICKNESS INCLUDES LEAD FINISH THICKNESS. MINIMUM LEAD THICKNESS IS THE MINIMUM THICKNESS OF BASE MATERIAL.

	MILLIMETERS			INCHES		
DIM	MIN	NOM	MAX	MIN	NOM	MAX
A	0.34	0.37	0.40	0.013	0.015	0.016
b	0.15	0.20	0.25	0.006	0.008	0.010
c	0.07	0.12	0.17	0.003	0.005	0.007
D	0.75	0.80	0.85	0.030	0.031	0.033
E	0.55	0.60	0.65	0.022	0.024	0.026
H_E	0.95	1.00	1.05	0.037	0.039	0.041
L	0.05	0.10	0.15	0.002	0.004	0.006

SOLDERING FOOTPRINT*



DIMENSIONS: MILLIMETERS

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HXY MOSFET:

E4D10120A IRLML2244TRPBF-HXY MUR1040FCT SS5150 TPD1E0B04DPYR C4D08120E-TR
DSC06065 S3D08065E SG3525-HXY 1SMB5930BT3G ISL28233FUZ-T7 PTVSHC3D5VU C3M0040120D
HBAS40-05LT1G ISL28133FHZ-T7 MJD127G C6D06065Q-TR CH440G SGM3798YG/TR
Si2323DS-T1-E3-HXY 2N7002-HXY AOD403-HXY MSC040SMA120B4 S4D15120H BD237STU
IDL10G65C5XUMA2 TLV74318PDBVR-HXY TPS7A0533PDBZR-HXY 1SMB5934B DMPH6250SQ-13