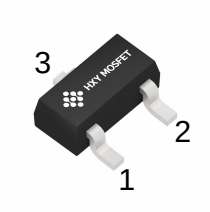
Discription

The HAOZ8212BCI12 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.

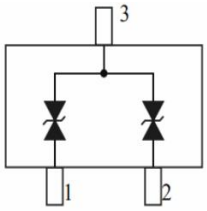
It gives designer the flexibility to protect one bi-directional line in applications where arrays are not practical.



SOT-23

Features

★ Low Leakage
★ IEC61000−4−2 Level 4 ESD Protection
★ We declare that the material of product compliant with RoHS requirements and Halogen Free.
★ S- Prefix for Automotive and Other Applications Requiring Unique Site and Control Change Requirements; AEC-Q101 Qualified and PPAP Capable.



Circuit Diagram

Ordering information

Product ID	Pack	Qty(PCS)
HAOZ8212BCI12	SOT-23	3000

Absolute Ratings (T_{amb}=25°C)

Symbol	Parameter	Value	Units
P_{PP}	Peak Pulse Power (t_p = 8/20μs)	180	W
T_L	Maximum lead temperature for soldering during 10s	260	°C
T_{stg}	Storage Temperature Range	-55 to +150	°C
T_{op}	Operating Temperature Range	-55 to +125	°C
T_j	Maximum junction temperature	150	°C
	IEC61000-4-2 (ESD) air discharge contact discharge	±30 ±30	KV
	IEC61000-4-4 (EFT)	15	A

Electrical Characteristics

Device	V_{RWM} (V)	I_R (A) @ V_{RWM}	V_{BR} (V) @ I_T (Note 1)		I_T	V_C (V) @ I_{PP} = 1 A (Note 2)	V_C (V) @MAX I_{PP} (Note 2)	I_{PP}(A) (Note 2)	P_{PK}(W) (Note 2)	C (pF)
	Max	Max	Min	Max	mA	Max	Max	Max	Max	Typ
HAOZ8212BCI12	12	0.5	12	15.8	1	16	20	11	190	8

Other voltage available upon request.

1. V_{BR} is measured with a pulse test current ITat an ambient temperature of 25℃
2. Surge current waveform per Figure 1.

Typical Characteristics

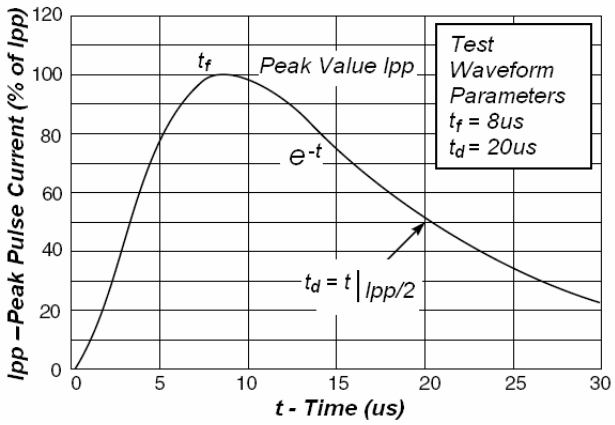


Fig1. Pulse Waveform

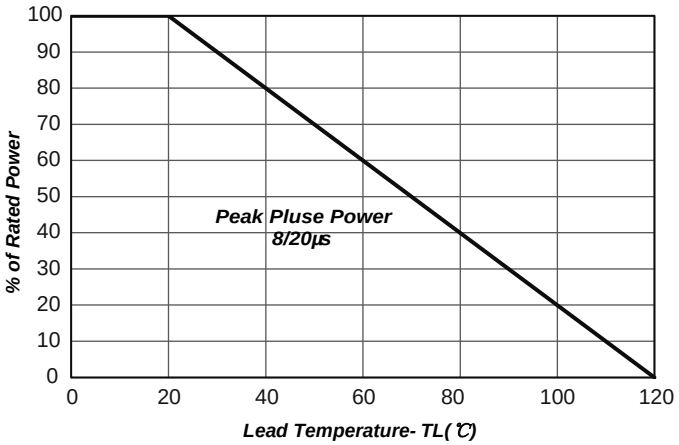
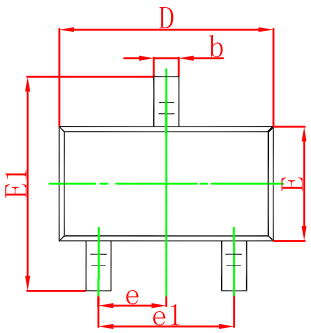
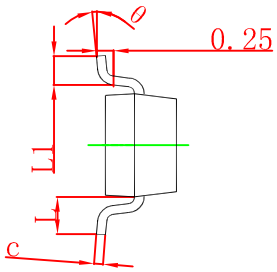
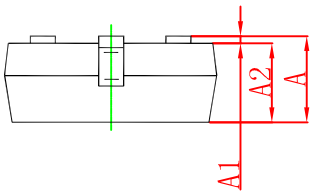


Fig2.Power Derating Curve

SOT-23 Package Outline Dimensions

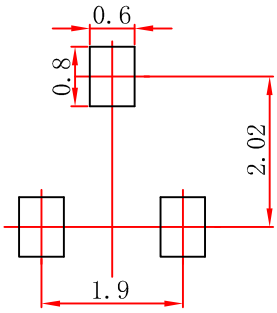






Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.900	1.150	0.035	0.045
A1	0.000	0.100	0.000	0.004
A2	0.900	1.050	0.035	0.041
b	0.300	0.500	0.012	0.020
c	0.080	0.150	0.003	0.006
D	2.800	3.000	0.110	0.118
E	1.200	1.400	0.047	0.055
E1	2.250	2.550	0.089	0.100
e	0.950 TYP		0.037 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-23 Suggested Pad Layout



Note:
1.Controlling dimension:in millimeters.
2.General tolerance:± 0.05mm.
3.The pad layout is for reference purposes only.

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E4D10120A IRLML2244TRPBF-HXY SG3525-HXY 2N7002-HXY ISL28233FUZ-T7 MJD127G S4D15120H
SGM3798YG/TR TPS7A0533PDBZR-HXY 1SMB5934B AOD403-HXY BD237STU C4D08120E-TR
ISL28133FHZ-T7 MSC040SMA120B4 C3M0040120D CH440G S3D08065E MUR1040FCT