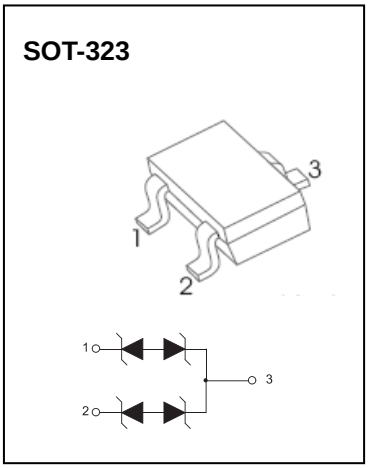
JIANGSU CHANGJIANG ELECTRONICS TECHNOLOGY CO., LTD

SOT-323 Plastic-Encapsulate Diodes

CESDB5V0AT3 ESD Protection Diode



DESCRIPTION

The CESDB5V0AT3 is designed to protect voltage sensitive components from ESD. Excellent clamping capability, low leakage, and fast response time provide best in class protection on designs that are exposed to ESD. Because of its small size, it is suited for use in cellular phones, MP3 players, digital cameras and many other portable applications where board space is at a premium.

FEATURES

- Reverse working (stand-off) Voltage: 5.0 V
- Low Leakage
- Response Time is Typically < 1 ns
- ESD Rating of Class 3 (> 16 kV) Per Human Body Model
- IEC61000−4−2 Level 4 ESD Protection
- This is a Pb−Free Device

Maximum Ratings @Ta=25℃

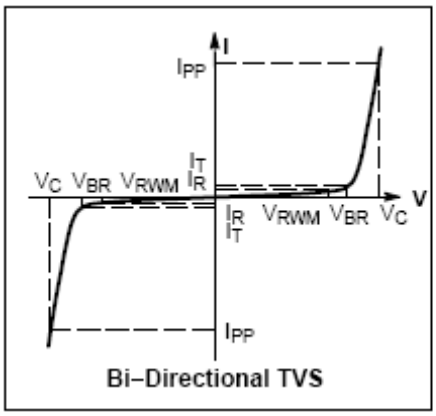
Parameter	Symbol	Limit	Unit
IEC61000−4−2(ESD) Air		±30	KV
Contact		±30	
ESD Voltage Per Human Body Model		16	KV
Per Machine Model		400	V
Total Power Dissipation on FR-5 Board (Note 1)	P_D	150	mW
Thermal Resistance Junction−to−Ambient	$R_{\Theta JA}$	833	℃/W
Lead Solder Temperature − Maximum (10 Second Duration)	T_L	260	℃
Junction and Storage Temperature Range	T_j, T_{stg}	-55 ~ +150	℃

Stresses exceeding maximum ratings may damage the device. Maximum ratings 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 x 0.75 x 0.62 in.

ELECTRICAL CHARACTERISTICS (Ta= 25°C unless otherwise noted)

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
C	Max. Capacitance @V_R=0 and f =1MHz



ELECTRICAL CHARACTERISTICS (Ta = 25°C unless otherwise noted)

Device*	Device Marking	V_{RWM} (V)	I_R (μ A) @ V_{RWM}	V_{BR} (V) @ I_T (Note 2)		I_T	Vc @IPP = 5 A	I_{PP}(A)	V_C (V) @Max I_{PP}	C (pF)@ V_R=0V,f=1MHz
		Max	Max	Min	Max	mA	V	Max	Max	Typ
CESDB5V0AT3	B5A	5.0	1.0	5.8	8.8	1.0	9	12. 5	15	26.5

*Other voltages available upon request.

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