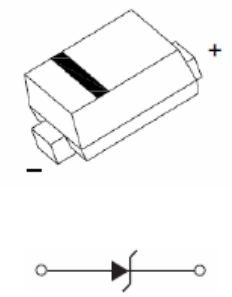
JIANGSU CHANGJIANG ELECTRONICS TECHNOLOGY CO., LTD

SOD-923 Plastic-Encapsulate Diodes

CESD5V0D9 ESD PROTECTION DIODE

SOD-923



DESCRIPTION

The CESD5V0D9 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.

FEATURES

- Low Reverse Stand−off Voltage: 5.0 V
- Low Leakage Current
- Response Time is Typically < 1 ns
- IEC61000−4−2 Level 4 ESD Protection
- These are Pb−Free Devices

APPLICATIONS

- Computers and peripherals
- Communications systems
- Audio and video equipment
- High speed data lines
- Parallel ports

MAXIMUM RATINGS (T_A=25℃ unless otherwise noted)

Parameter	Symbol	Limit	Unit
Electrostatic Discharge Voltage (IEC61000−4−2)(note1) Air	V_{ESD}	±16	kV
Contact		±16	
per human body model		20	
per machine model		0.4	
Total Power Dissipation on FR-5 Board (note 2)	P_D	100	mW
Thermal Resistance from Junction to Ambient	$R_{\Theta JA}$	1250	℃/W
Lead Solder Temperature − Maximum (10 Second Duration)	T_L	260	℃
Junction Temperature	T_J	150	℃
Storage Temperature Range	T_{stg}	-55 ~ +150	℃

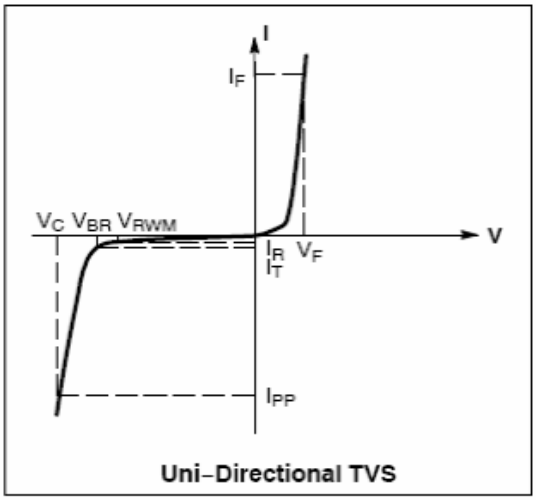
Note: 1.Device stressed with ten non-repetitive ESD pulses.

2. FR−5 = 1.0 x 0.75 x 0.62 in.

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.

ELECTRICAL PARAMETER

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}
I_T	Test Current
V_{BR}	Breakdown Voltage @ I_T
I_F	Forward Current
V_F	Forward Voltage @ I_F



ELECTRICAL CHARACTERISTICS (T_A = 25˚C unless otherwise noted)

Device[1]	Device Marking	V_{RWM} (V)	I_R (μA) @ V_{RWM}	V_{BR} (V) [2] @ I_T=1mA		V_C(V) @I_{PP}[3]=5 A	V_F(V) @I_F=10mA	C (pF) @V_R=0,f=1MHz
		Max	Max	Min	Max	Max	Max	Typ
CESD5V0D9	**B**	5	1	6	8	15	0.9	20

(1)Other voltages available upon request.

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

(3) Non-repetitive current pulse 8/20s exponential decay waveform according to IEC 61000-4-5.