



#### LOW CAPACITANCE DOUBLE BIDIRECTIONAL ESD PROTECTION DIODES

### VOLTAGE 24 Volts IPP 4 Amperes SOT-23

#### **FEATURES**

- ESD protection of two lines
- Lead free in comply with EU RoHS 2011/65/EU directives
- Green molding compound as per IEC61249 Std. . (Halogen Free)

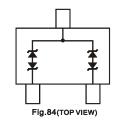
#### **MECHANICAL DATA**

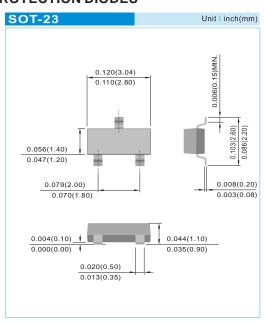
• Case : SOT-23, Plastic

• Terminals : Solderable per MIL-STD-750, Method 2026

• Approx. Weight: 0.0003 ounces, 0.0084 grams

• Marking: 12A





#### MAXIMUM RATINGS AND ELECTRICAL CHATACTERISTICS

Rating	Symbol	Value	Units
Peak Pulse Current on 8/20μs waveform (Notes 1,2,3)	I <sub>PPM</sub>	4	Amps
ESD Voltage Air Mode	V <sub>ESD</sub>	20	KV
ESD Voltage Contact Mode	V <sub>ESD</sub>	20	KV
Operating Temperature And Storage Temperature	T <sub>J</sub> ,T <sub>STG</sub>	-55 to +150	°C

#### **ELECTRICAL CHATACTERISTICS**

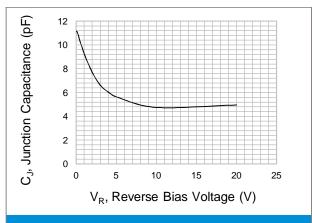
Parameter	Symbol	Conditions	Min.	Тур.	Max.	Units
Reverse Stand-Off Voltage (Notes 4)	V <sub>RWM</sub>	-	-	-	24	V
Reverse Breakdown Voltage	V <sub>BR</sub>	I <sub>BR</sub> =5mA	25.4	-	30.3	V
Reverse Leakage Current	I <sub>R</sub>	V <sub>R</sub> =24V	-	-	50	nA
Clamping Voltage (8/20µs)	V <sub>c</sub>	I <sub>PP</sub> =4A	-	-	50	V
Off State Junction Capacitance	CJ	V <sub>R</sub> =0V, f=1MHz	-	11	-	pF

#### NOTES:

- 1. Non-repetitive current pulse.
- 2. Mounted on copper pads to each terminal.
- 3. Peak pulse power waveform is  $8/20\mu s. \label{eq:equation}$
- 4. A transient suppressor is selected according to the working peak reverse voltage (VRWM), which should be equal to or greater than the DC or continuous peak operating voltage level.







**Fig.1 Typical Junction Capacitance** 

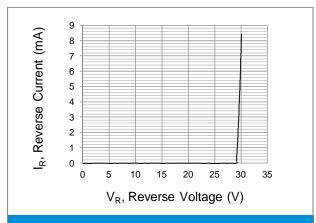


Fig.2 Typical Reverse Characteristics

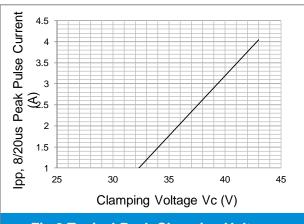


Fig.3 Typical Peak Clamping Voltage

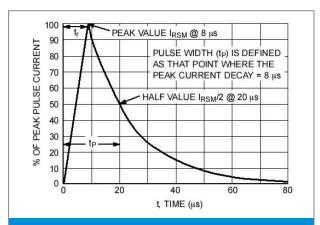
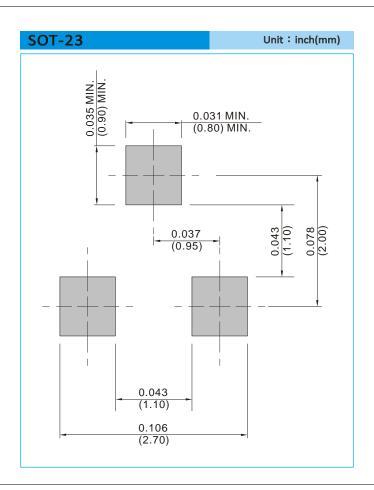


Fig.4 8/20μS Peak Pulse Current Waveform





#### **MOUNTING PAD LAYOUT**



#### **ORDER INFORMATION**

• Packing information

T/R - 12K per 13" plastic Reel

T/R - 3K per 7" plastic Reel





### Part No\_packing code\_Version

PJEC24MTA\_R1\_00001 PJEC24MTA\_R2\_00001

### For example:



Packing Code XX			Version Code XXXXX			
Packing type	1 <sup>st</sup> Code	Packing size code	2 <sup>nd</sup> Code	HF or RoHS	1 <sup>st</sup> Code	2 <sup>nd</sup> ~5 <sup>th</sup> Code
Tape and Ammunition Box (T/B)	A	N/A	0	HF	0	serial number
Tape and Reel (T/R)	R	7"	1	RoHS	1	serial number
Bulk Packing (B/P)	В	13"	2			
Tube Packing (T/P)	Т	26mm	X			
Tape and Reel (Right Oriented) (TRR)	S	52mm	Y			
Tape and Reel (Left Oriented) (TRL)	L	PANASERT T/B CATHODE UP (PBCU)	U			
FORMING	F	PANASERT T/B CATHODE DOWN (PBCD)	D			





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