



#### SINGLE LINE TVS DIODE FOR ESD PROTECTION PORTABLE ELECTRONICS

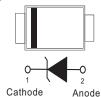
VOLTAGE 3.3 Volt IPP 5.5 Ampere SOD-523

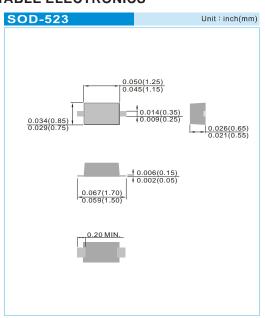
#### **FEATURES**

- Small package for use in portable electronics
- Suitable replacement for MLV'S in ESD protection applications
- Low clamping voltage and leakage current
- Lead free in compliance with EU RoHS 2011/65/EU directive
- Green molding compound as per IEC61249 Std. . (Halogen Free)

### **APPLICATIONS**

- Case : SOD-523 plastic
- Terminals : Solderable per MIL-STD-750, Method 2026
- Approx Weight: 0.00005 ounces, 0.0014 grams.
- Marking : QN





#### **MAXIMUM RATINGS AND ELECTRICAL CHATACTERISTICS**

Rating	Symbol	Value	Units
Peak Pulse Current on 8/20μs waveform (Notes 1,2,3)	I <sub>PPM</sub>	5.5	Amps
ESD Voltage Air Mode	V <sub>ESD</sub>	30	KV
ESD Voltage Contact Mode	V <sub>ESD</sub>	25	KV
Operating Temperature And Storage Temperature	$T_{J}, T_{STG}$	-55 to +150	°C

### **ELECTRICAL CHATACTERISTICS**

Parameter	Symbol	Conditions	Min.	Тур.	Max.	Units
Reverse Stand-Off Voltage (Notes 4)	V <sub>RWM</sub>	-	-	-	3.3	V
Reverse Breakdown Voltage	V <sub>BR</sub>	I <sub>BR</sub> =1mA	5.25	-	5.95	V
Reverse Leakage Current	I <sub>R</sub>	V <sub>R</sub> =3.3V	-	-	0.5	μА
Clamping Voltage (8/20µs)	V <sub>c</sub>	I <sub>pp</sub> =5.5A	-	-	7.9	V
Off State Junction Capacitance	CJ	0Vdc Bias, f=1MHz	-	-	40	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.





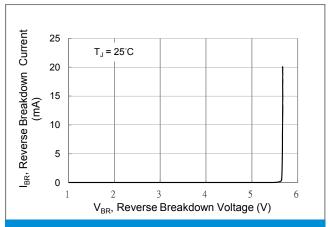
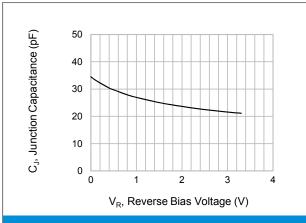


Fig.1 Typical Reverse Characteristices



**Fig.2 Typical Junction Capacitance** 

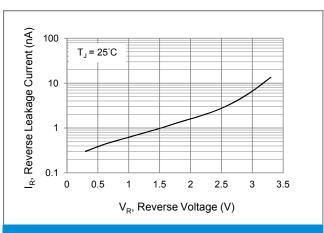


Fig.3 Reverse Leakage Current

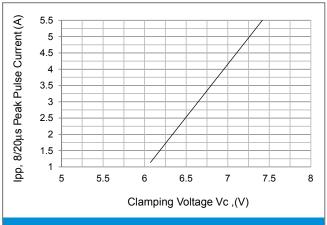


Fig.4 Typical Peak Clamping Voltage

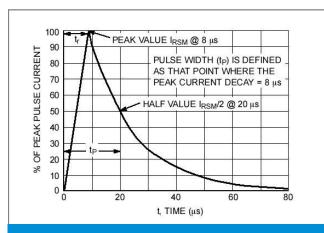
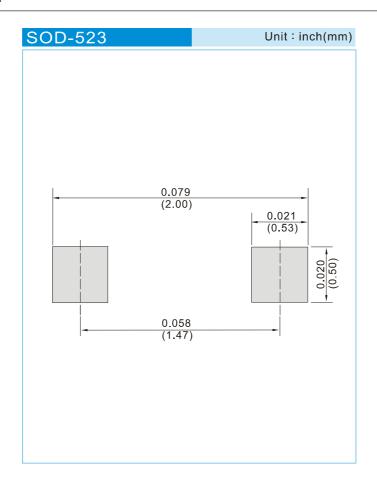


Fig.5 8/20μS Peak Pulse Current Waveform





#### **MOUNTING PAD LAYOUT**



### **ORDER INFORMATION**

• Packing information

T/R - 12K per 13" plastic Reel

T/R - 5K per 7" plastic Reel

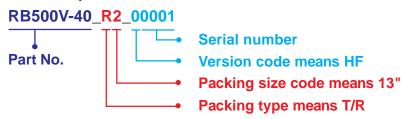




# Part No\_packing code\_Version

PJET3V3TS\_R1\_00001 PJET3V3TS\_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)	Α	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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