



PJSDC15

TVS DIODE ARRAY FOR ESD PROTECTION OF 12V DATA AND POWER LINES

FEATURES

- 300 watt peak pulse power ($t_p=8/20\mu s$)
- 40 watt peak pulse power ($t_p=10/1000\mu s$)
- Transient protection for data and power lines to IEC 61000-4-2 $\pm 15kV$ (air), $\pm 8kV$ (contact)
- Protects one bidirectional line
- Low clamping voltage
- Low leakage current
- High surge capability
- Solid-state silicon avalanche technology
- Lead free in compliance with EU RoHS 2011/65/EU directive
- 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 ounce, 0.0084 gram

Marking : C15

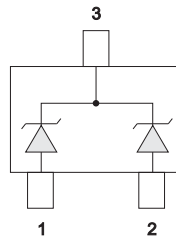
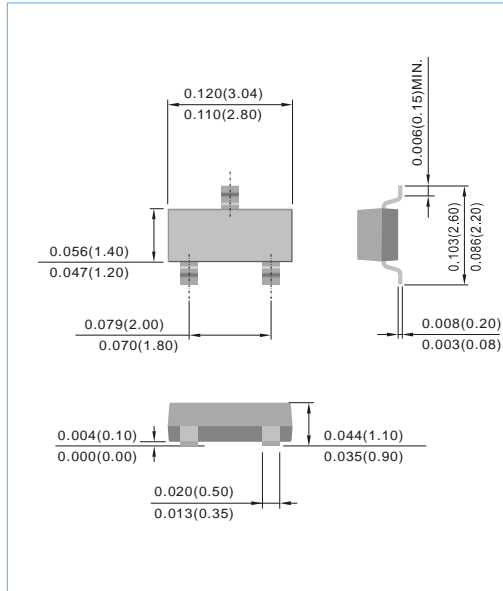


Fig.38

SOT-23

Unit : inch(mm)



ABSOLUTE MAXIMUM RATINGS

PARAMETER	SYMBOL	VALUE	UNIT
Peak Pulse Power ($t_p=8/20\mu s$)	P_{PK}	300	W
Peak Pulse Current ($t_p=8/20\mu s$)	I_{PP}	10	A
Non-Repetitive Peak Forward Current ($t_p=100\mu s$)	I_{FSMAX}	4	A
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	556	$^{\circ}C/W$
Lead Soldering Temperature	T_L	260 (10 sec.)	$^{\circ}C$
Operating Temperature	T_J	-55 to + 125	$^{\circ}C$
Storage Temperature	T_{STG}	-55 to + 150	$^{\circ}C$



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ELECTRICAL CHARACTERISTICS

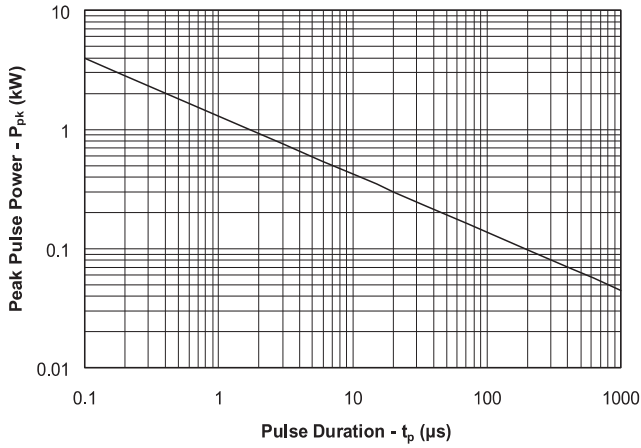
PARAMETER	TEST CONDITION	SYMBOL	MIN.	MAX.	UNIT
Reverse Stand-Off Voltage		V_{RWM}	-	12.8	V
Reverse Breakdown Voltage	$I_T=1\text{mA}$, Between Pin 1 and 2 (each direction)	V_{BR}	14.3	16.4	V
Reverse Leakage Current	$V_{RWM}=12.8\text{V}, T=25^\circ\text{C}$ Between Pin 1 and 2 (each direction)	I_R	-	100	nA
Forward Voltage	$I_F=100\text{mA}$, Pin 1 to 3 and Pin 2 to 3	V_F	-	1.3	V
Temperature Coefficient of V_{BR}		αV_{BR}	-	12	mV/°C
Clamping Voltage	$I_{PP}=1.9\text{A}$, $t_p=8/20\mu\text{s}$ Between Pin 1 and 2 (each direction)	V_C	-	21.2	V
Junction Capacitance	$V_R=0\text{V}, f=1\text{MHz}$ Pin 1 to 2	C_J	-	120	pF



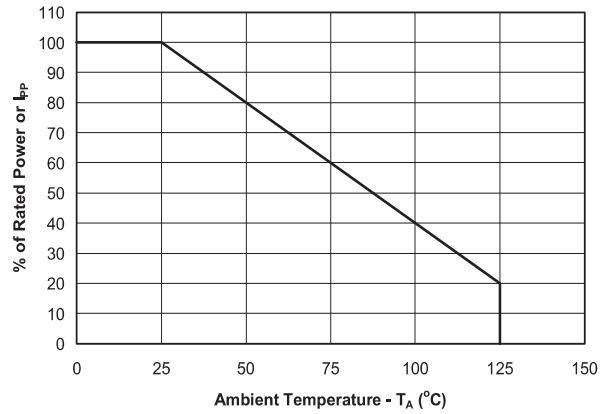
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Typical Characteristics

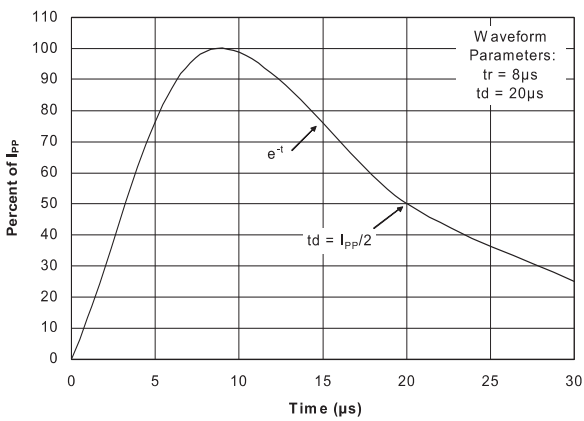
Non-Repetitive Peak Pulse Power vs. Pulse Time



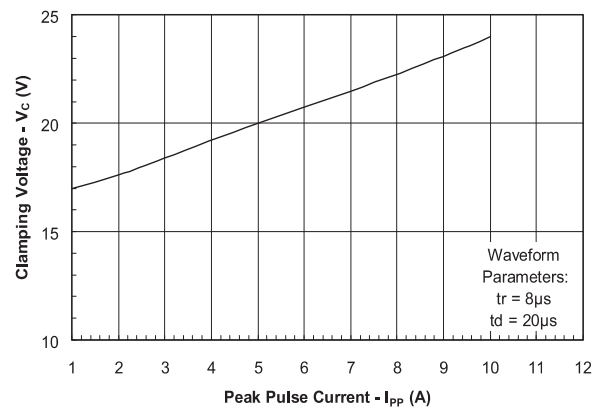
Power Derating Curve



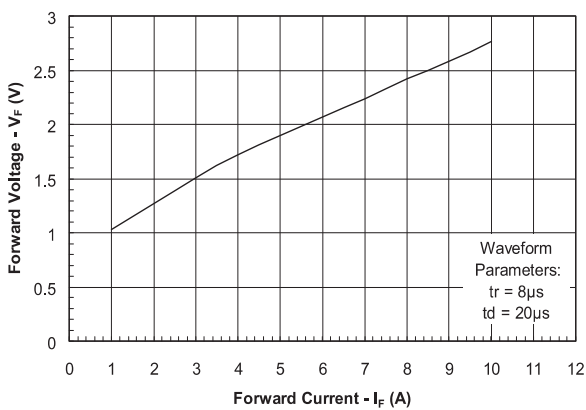
Pulse Waveform



Clamping Voltage vs. Peak Pulse Current



Forward Voltage vs. Forward Current



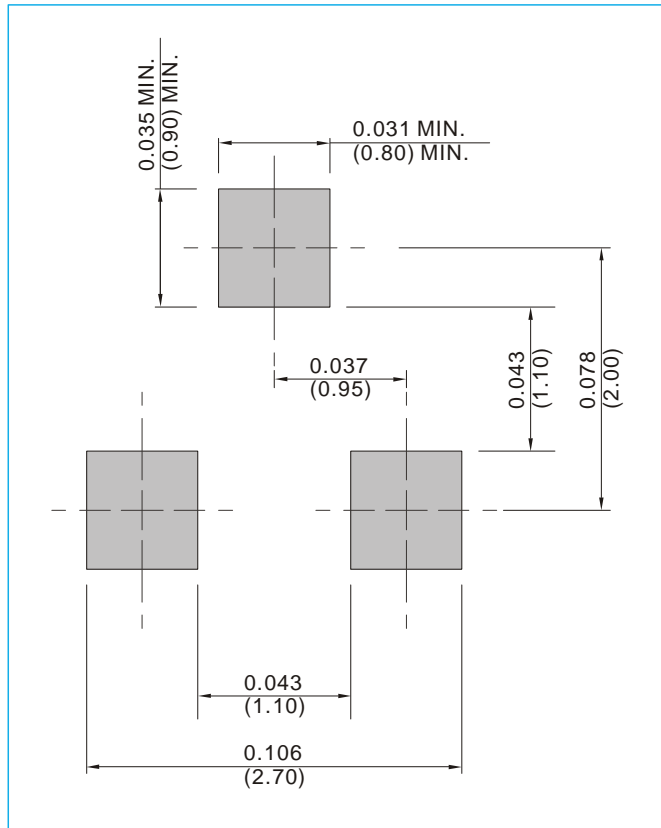


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MOUNTING PAD LAYOUT

SOT-23

Unit : inch(mm)



ORDER INFORMATION

- Packing information
 - T/R - 12K per 13" plastic Reel
 - T/R - 3K per 7" plastic Reel



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Part No_packing code_Version

PJSDC15_R1_00001

PJSDC15_R2_00001

For example :

RB500V-40 **R2** **00001**



Packing Code XX				Version Code XXXXX		
Packing type	1 st Code	Packing size code	2 nd Code	HF or RoHS	1 st Code	2 nd ~5 th 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)	B	13"	2			
Tube Packing (T/P)	T	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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