

PJDLC05~PJDLC24

VOLTAGE 5 to 24 Volt **POWER** 400 Watt

SOT-23 Unit : inch(mm)

ULTRA LOW CAPACITANCE DUAL TRANSIENT VOLTAGE SUPPRESSOR FOR HIGH SPEED DATA LINES

This transient overvoltage suppressor is intended to protect sensitive equipment against electrostatic discharge events as well to offer a minimum Insertion loss in data transmission lines in communications ports used in portable consumer, computing and networking applications. This dual transient voltage suppressor comes in a single SOT-23, offering board space reduction, where the application requires it.

FEATURES

- Maximum capacitance @ 0 Vdc Bias of 1.2 pF between terminals 1-3 or terminals 2-3
- IEC61000-4-2 esd 15kV Air, 8kV contact compliance
- 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 ounces, 0.008 grams

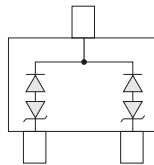
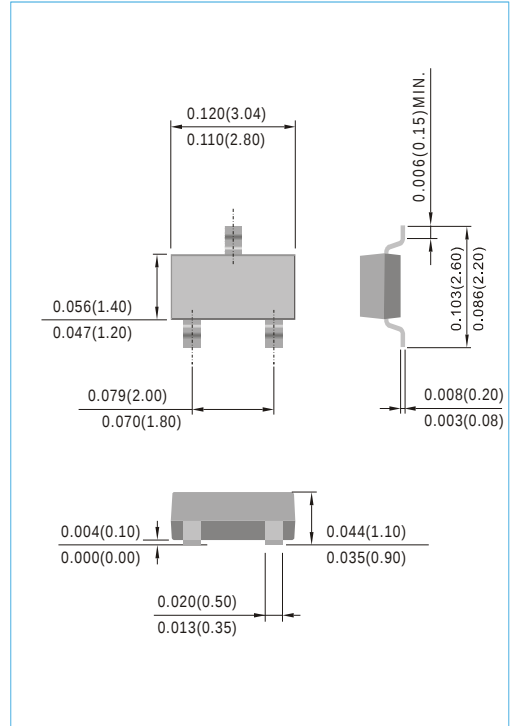


Fig.21



MAXIMUM RATINGS

Parameter	Symbol	Value	Units
Operating Junction	T _J	-55 to +125	°C
Storage Temperature Range	T _{STG}	-55 to +150	°C

ELECTRICAL CHARACTERISTICS

PJDLC05 Makring T2S						
Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Reverse Stand-Off Voltage	V _{RWM}	-	-	-	5	V
Reverse Breakdown Voltage	V _{BR}	I _T = 1mA	6	-	-	V
Reverse Leakage Current	I _R	V _{RWM} = 5V, T = 25°C	-	-	20	μA
Clamping Voltage	V _C	I _{PP} = 1A t _p = 8/20 μs	-	-	9.8	V
Clamping Voltage	V _C	I _{PP} = 5A t _p = 8/20 μs	-	-	11	V
Junction Capacitance	C _J	Between pin1.2 to 3 V _R = 0V, f = 1MHz	-	-	1.0	pF



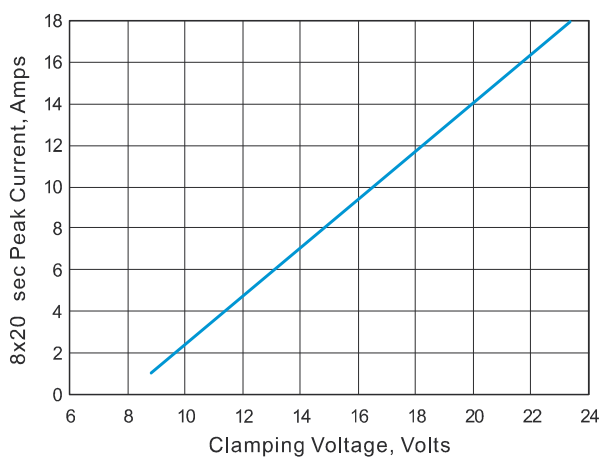
PJDLC05~PJDLC24

PJDLC12 Marking DJ2						
Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Reverse Stand-Off Voltage	V_{RWM}	-	-	-	12	V
Reverse Breakdown Voltage	V_{BR}	$I_T=1mA$	13.3	-	-	V
Reverse Leakage Current	I_R	$V_{RWM} = 12V,$ $T = 25^{\circ}C$	-	-	1	μA
Clamping Voltage	V_C	$I_{PP} = 1A$ $t_p = 8/20 \mu s$	-	-	19	V
Clamping Voltage	V_C	$I_{PP} = 5A$ $t_p = 8/20 \mu s$	-	-	24	V
Junction Capacitance	C_J	Between pin1,2 to 3 $V_R=0V, f=1MHz$	-	-	1.0	pF

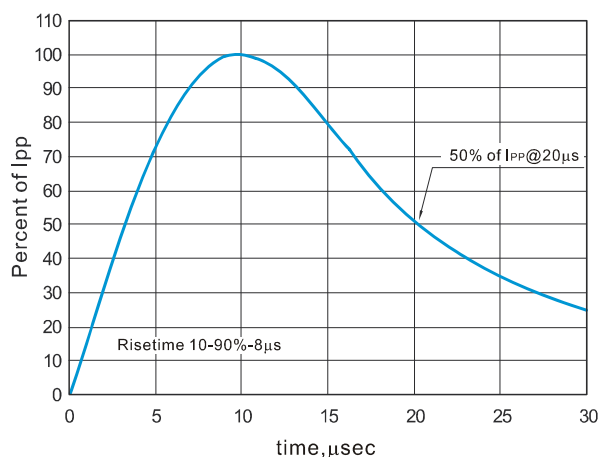
PJDLC15 Marking DJ5						
Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Reverse Stand-Off Voltage	V_{RWM}	-	-	-	15	V
Reverse Breakdown Voltage	V_{BR}	$I_T=1mA$	16.7	-	-	V
Reverse Leakage Current	I_R	$V_{RWM} = 15V,$ $T = 25^{\circ}C$	-	-	1	μA
Clamping Voltage	V_C	$I_{PP} = 1A$ $t_p = 8/20 \mu s$	-	-	24	V
Clamping Voltage	V_C	$I_{PP} = 5A$ $t_p = 8/20 \mu s$	-	-	30	V
Junction Capacitance	C_J	Between pin1,2 to 3 $V_R=0V, f=1MHz$	-	-	1.2	pF

PJDLC24 Marking DJ4						
Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Reverse Stand-Off Voltage	V_{RWM}	-	-	-	24	V
Reverse Breakdown Voltage	V_{BR}	$I_T=1mA$	26.7	-	-	V
Reverse Leakage Current	I_R	$V_{RWM} = 24V,$ $T = 25^{\circ}C$	-	-	1	μA
Clamping Voltage	V_C	$I_{PP} = 1A$ $t_p = 8/20 \mu s$	-	-	43	V
Clamping Voltage	V_C	$I_{PP} = 5A$ $t_p = 8/20 \mu s$	-	-	55	V
Junction Capacitance	C_J	Between Pin 1.2 to 3 $V_R = 0V, f = 1MHz$	-	-	1.0	pF

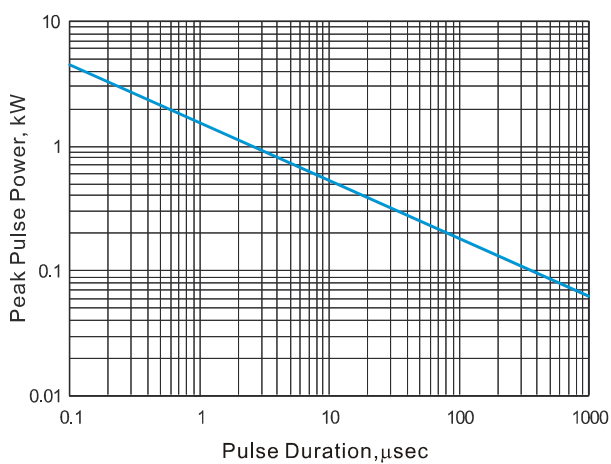
PJDLC05~PJDLC24



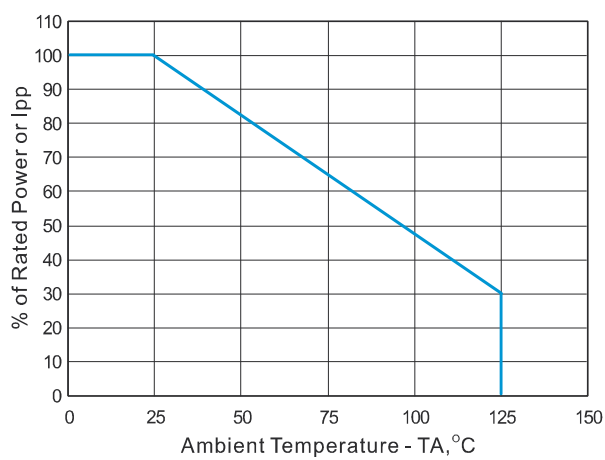
Clamping Voltage vs Ipp 8x20 sec



Pulse Waveform



Non-Repetitive Peak Pulse Power vs Pulse Time



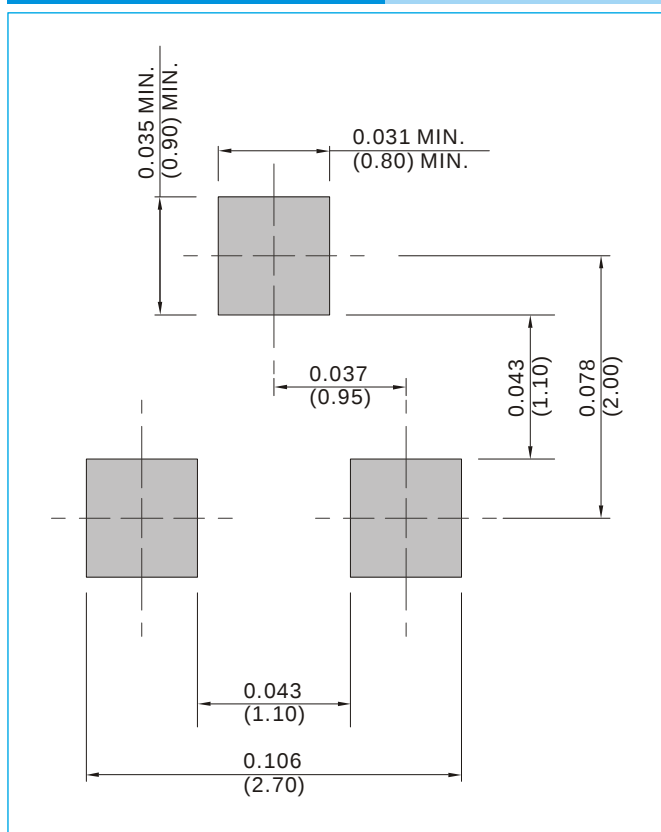
Power Derating Curve

PJDLC05~PJDLC24

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

PJDLC05~PJDLC24

Part No_packing code_Version

PJDLC05_R1_00001

PJDLC05_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			



PJDLC05~PJDLC24

Disclaimer

- Reproducing and modifying information of the document is prohibited without permission from Panjit International Inc..
- Panjit International Inc. reserves the rights to make changes of the content herein the document anytime without notification. Please refer to our website for the latest document.
- Panjit International Inc. disclaims any and all liability arising out of the application or use of any product including damages incidentally and consequentially occurred.
- Panjit International Inc. does not assume any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.
- Applications shown on the herein document are examples of standard use and operation. Customers are responsible in comprehending the suitable use in particular applications. Panjit International Inc. makes no representation or warranty that such applications will be suitable for the specified use without further testing or modification.
- The products shown herein are not designed and authorized for equipments requiring high level of reliability or relating to human life and for any applications concerning life-saving or life-sustaining, such as medical instruments, transportation equipment, aerospace machinery et cetera. Customers using or selling these products for use in such applications do so at their own risk and agree to fully indemnify Panjit International Inc. for any damages resulting from such improper use or sale.
- Since Panjit uses lot number as the tracking base, please provide the lot number for tracking when complaining.