

PJSD03TS-AU~PJSD36TS-AU

SINGLE LINE TVS DIODE FOR ESD PROTECTION PORTABLE ELECTRONICS

VOLTAGE 3~36 Volt **POWER** 120 Watt

SOD-523

Unit : inch(mm)

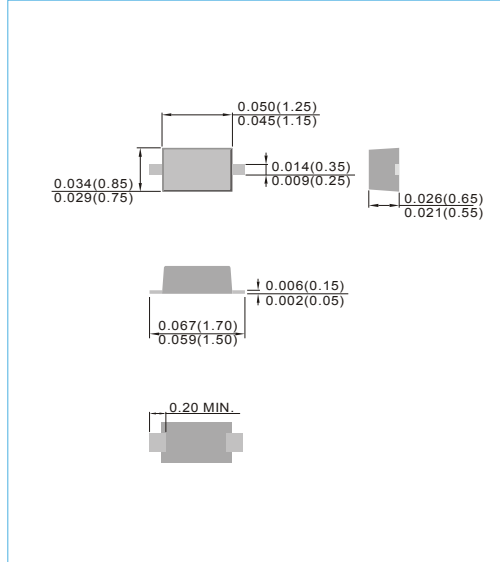
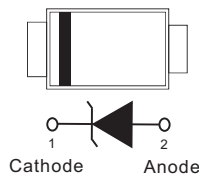
FEATURES

- 120 Watts peak pules power($t_p=8/20\mu s$)
- Small package for use in portable electronics
- Suitable replacement for MLV'S in ESD protection applications
- Low clamping voltage and leakage current
- AEC-Q101 qualified
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

APPLICATIONS

- Case: SOD-523 plastic
- Terminals : Solderable per MIL-STD-750,Method 2026
- Approx Weight: 0.00005 ounces, 0.0014 grams
- Marking : PJSD03TS-AU : KD

PJSD05TS-AU : KE
PJSD07TS-AU : KF
PJSD08TS-AU : KR
PJSD12TS-AU : LE
PJSD15TS-AU : LM
PJSD24TS-AU : LZ
PJSD36TS-AU : MP



MAXIMUM RATINGS AND ELECTRICAL CHATACTERISTICS

ABSOLUTE MAXIMUM RATING

Rating	Symbol	Value	Units
Peak Pulse Power Dissipation ($t_p=8/20 \mu s$)	P_{PP}	120	W
ESD Voltage	V_{ESD}	25	KV
Operating Temperature	T_J	-50 to +150	°C
Storage Temperature	T_{STG}	-50 to +150	°C

ELECTRICAL CHATACTERISTICS

PJSD03TS-AU						
Parameter	Symbol	Conditions	Min.	Typical	Max.	Units
Reverse Stand-Off Voltage	V_{RWM}	-	-	-	3.3	V
Reverse Breakdown Voltage	V_{BR}	$I_{BR}=1mA$	4	-	-	V
Reverse Leakage Current	I_R	$V_R=3.3V$	-	-	200	μA
Clamping Voltage(8/20 μs)	V_C	$I_{PP}=5A$	-	-	6.5	V
Off State Junction Capacitance	C_J	0Vdc Bias=f=1MHz	-	-	200	pF
Off State Junction Capacitance	C_J	3.3Vdc Bias=f=1MHz	-	-	100	pF



PJSD03TS-AU~PJSD36TS-AU

PJSD05TS-AU						
Parameter	Symbol	Conditions	Min.	Typical	Max.	Units
Reverse Stand-Off Voltage	V_{RWM}	-	-	-	5	V
Reverse Breakdown Voltage	V_{BR}	$I_{BR}=1mA$	6.0	-	-	V
Reverse Leakage Current	I_R	$V_R=5V$	-	-	5	μA
Clamping Voltage(8/20 μs)	V_C	$I_{PP}=5A$	-	-	9	V
Off State Junction Capacitance	C_J	0Vdc Bias=f=1MHz	-	-	110	pF
Off State Junction Capacitance	C_J	5Vdc Bias=f=1MHz	-	-	60	pF

PJSD07TS-AU						
Parameter	Symbol	Conditions	Min.	Typical	Max.	Units
Reverse Stand-Off Voltage	V_{RWM}	-	-	-	7.0	V
Reverse Breakdown Voltage	V_{BR}	$I_{BR}=1mA$	7.5	-	-	V
Reverse Leakage Current	I_R	$V_R=7V$	-	-	150	nA
Clamping Voltage(8/20 μs)	V_C	$I_{PP}=8.8A$	-	-	22.7	V
Off State Junction Capacitance	C_J	0Vdc Bias=f=1MHz	-	-	85	pF

PJSD08TS-AU						
Parameter	Symbol	Conditions	Min.	Typical	Max.	Units
Reverse Stand-Off Voltage	V_{RWM}	-	-	-	8	V
Reverse Breakdown Voltage	V_{BR}	$I_{BR}=1mA$	8.5	-	-	V
Reverse Leakage Current	I_R	$V_R=8V$	-	-	5	μA
Clamping Voltage(8/20 μs)	V_C	$I_{PP}=5A$	-	-	13	V
Off State Junction Capacitance	C_J	0Vdc Bias=f=1MHz	-	-	70	pF

PJSD12TS-AU						
Parameter	Symbol	Conditions	Min.	Typical	Max.	Units
Reverse Stand-Off Voltage	V_{RWM}	-	-	-	12	V
Reverse Breakdown Voltage	V_{BR}	$I_{BR}=1mA$	13.3	-	-	V
Reverse Leakage Current	I_R	$V_R=12V$	-	-	5	μA
Clamping Voltage(8/20 μs)	V_C	$I_{PP}=5A$	-	-	17	V
Off State Junction Capacitance	C_J	0Vdc Bias=f=1MHz	-	-	60	pF



PJSD03TS-AU~PJSD36TS-AU

PJSD15TS-AU						
Parameter	Symbol	Conditions	Min.	Typical	Max.	Units
Reverse Stand-Off Voltage	V_{RWM}	-	-	-	15	V
Reverse Breakdown Voltage	V_{BR}	$I_{BR}=1mA$	16.6	-	-	V
Reverse Leakage Current	I_R	$V_R=15V$	-	-	5	μA
Clamping Voltage(8/20 μs)	V_C	$I_{PP}=5A$	-	-	22	V
Off State Junction Capacitance	C_J	0Vdc Bias=f=1MHz	-	-	50	pF

PJSD24TS-AU						
Parameter	Symbol	Conditions	Min.	Typical	Max.	Units
Reverse Stand-Off Voltage	V_{RWM}	-	-	-	24	V
Reverse Breakdown Voltage	V_{BR}	$I_{BR}=1mA$	26.7	-	-	V
Reverse Leakage Current	I_R	$V_R=24V$	-	-	5	μA
Clamping Voltage(8/20 μs)	V_C	$I_{PP}=3A$	-	-	32	V
Off State Junction Capacitance	C_J	0Vdc Bias=f=1MHz	-	-	25	pF

PJSD36TS-AU						
Parameter	Symbol	Conditions	Min.	Typical	Max.	Units
Reverse Stand-Off Voltage	V_{RWM}	-	-	-	36	V
Reverse Breakdown Voltage	V_{BR}	$I_{BR}=1mA$	40	-	-	V
Reverse Leakage Current	I_R	$V_R=36V$	-	-	5	μA
Clamping Voltage(8/20 μs)	V_C	$I_{PP}=1A$	-	-	55	V
Off State Junction Capacitance	C_J	0Vdc Bias=f=1MHz	-	-	20	pF

PJSD03TS-AU~PJSD36TS-AU

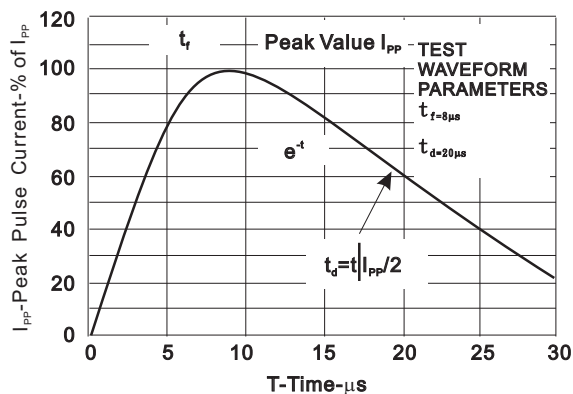


FIG. 1- Pulse Wave Form

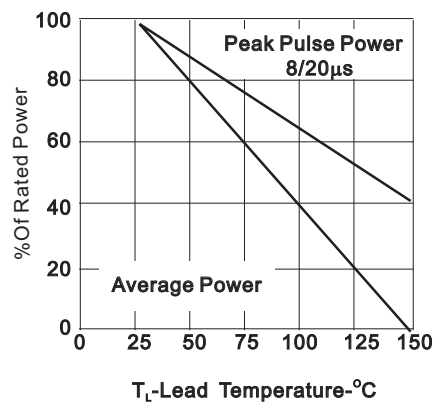


FIG. 2-Power Derating Curve

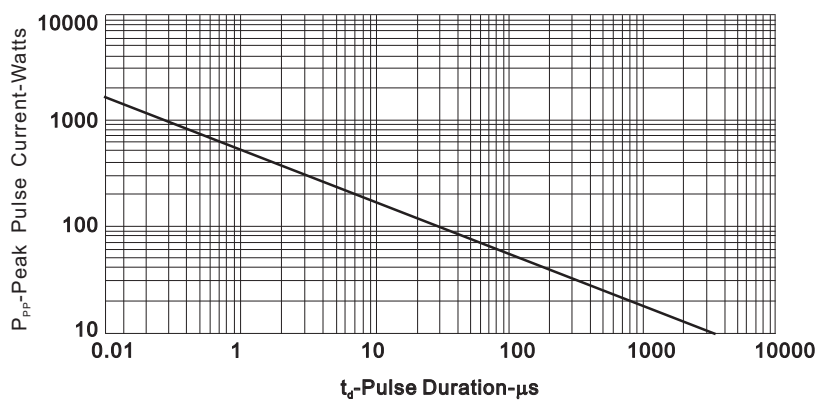


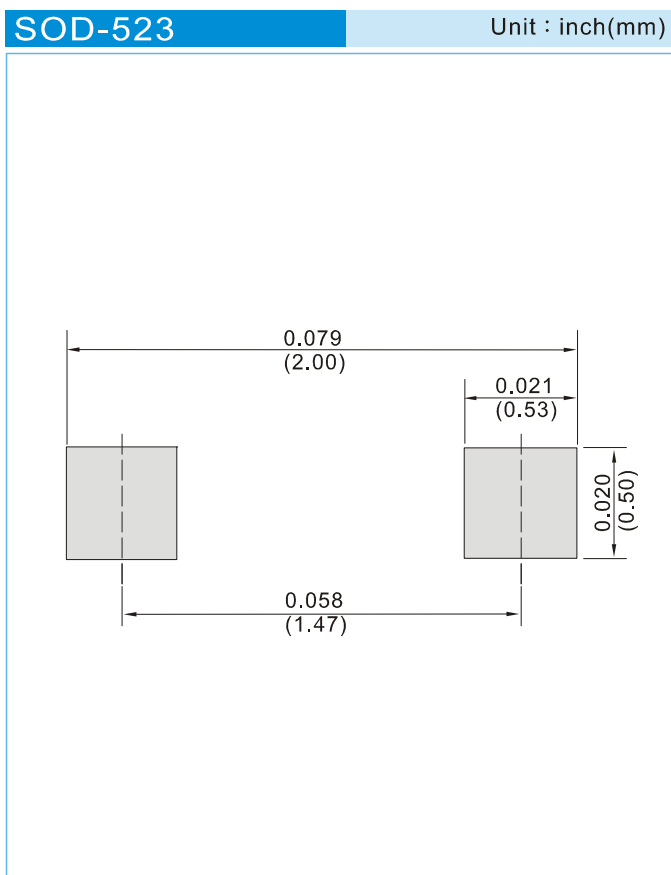
FIG. 3-Peak Pulse Power vs Pulse Time

PJSD03TS-AU~PJSD36TS-AU

PART NO PACKING CODE VERSION

Part No Packing Code	Package Type	Packing Type	Marking	Version
PJSD03TS-AU_R1_000A1	SOD-523	5K pcs / 7" reel	KD	Halogen free
PJSD03TS-AU_R2_000A1	SOD-523	12K pcs / 13" reel	KD	Halogen free

MOUNTING PAD LAYOUT





PJSD03TS-AU~PJSD36TS-AU

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 relating to human life and for any applications concerning life-saving or life-sustaining, such as medical instruments, 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.

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Panjit:

[PJSD12TS-AU_R1_000A1](#)