

PJSD03TS~PJSD36TS

SINGLE LINE TVS DIODE FOR ESD PROTECTION PORTABLE ELECTRONICS

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

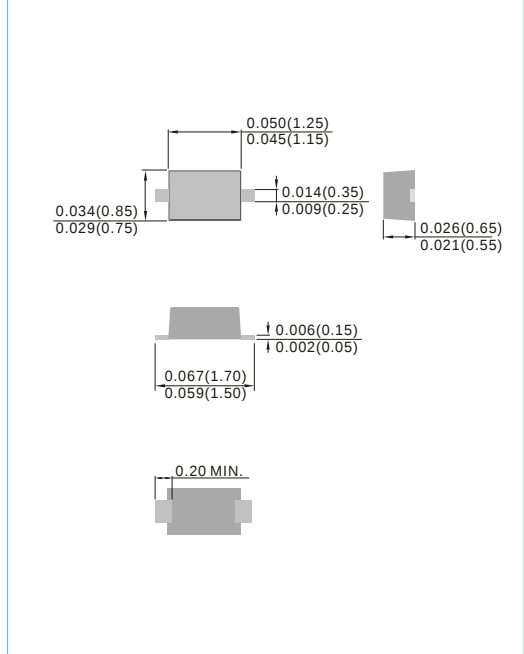
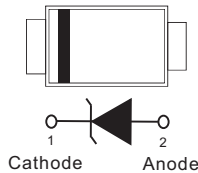
SOD-523 Unit : inch(mm)

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
- 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 : PJSD03TS : KD
PJSD05TS : KE
PJSD07TS : KF
PJSD08TS : KR
PJSD12TS : LE
PJSD15TS : LM
PJSD24TS : LZ
PJSD36TS : MP



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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 CHARACTERISTICS

PJSD03TS						
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



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PJSD05TS						
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						
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						
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						
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~PJSD36TS

PJSD15TS						
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						
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						
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

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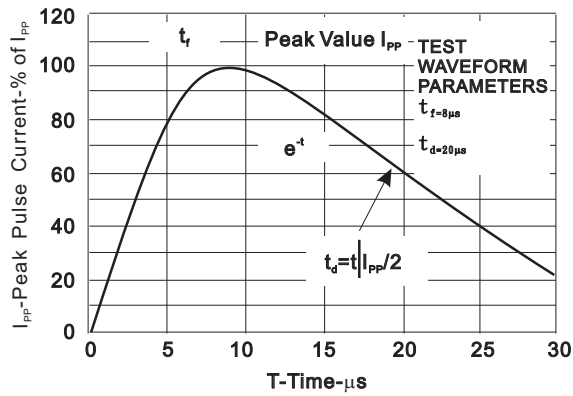


FIG. 1- Pulse Wave Form

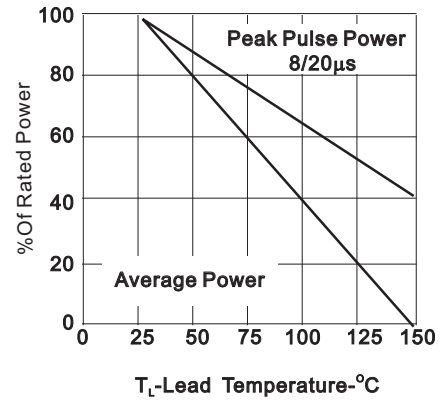


FIG. 2-Power Derating Curve

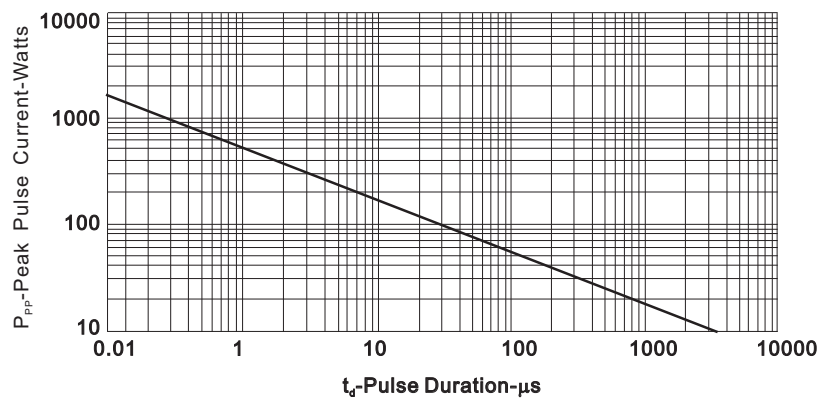


FIG. 3-Peak Pulse Power vs Pulse Time

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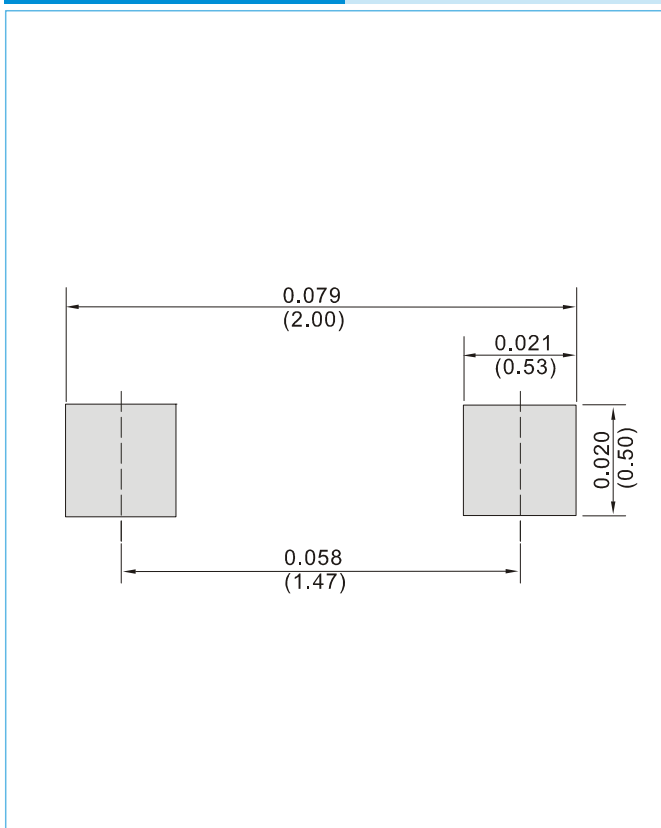
PART NO PACKING CODE VERSION

Part No Packing Code	Package Type	Packing Type	Marking	Version
PJSD03TS_R1_00001	SOD-523	5K pcs / 7" reel	KD	Halogen free
PJSD03TS_R2_00001	SOD-523	12K pcs / 13" reel	KD	Halogen free

MOUNTING PAD LAYOUT

SOD-523

Unit : inch(mm)





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