



PJSD03TG~PJSD36TG

SINGLE LINE TVS DIODE FOR ESD PROTECTION PORTABLE ELECTRONICS

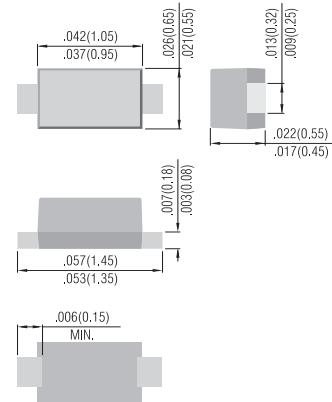
VOLTAGE 3~36 Volts **POWER** 100 Watts

SOD-723

Unit: inch (mm)

FEATURES

- 100 Watts peak pulses power(tp=8/20μs)
- Small package for use in portable electronics
- Suitable replacement for MLV'S in ESD protection applications
- Low clamping voltage and leakage current
- In compliance with EU RoHS 2002/95/EC directives



APPLICATIONS

- Case: SOD-723 plastic
- Terminals : Solderable per MIL-STD-750,Method 2026
- Approx.Weight : 0.00077 gram
- Marking : PJSD03TG : FS
PJSD05TG : FT
PJSD08TG : FU
PJSD12TG : FV
PJSD15TG : FW
PJSD24TG : FX
PJSD36TG : FY

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

ABSOLUTE MAXIMUM RATING

Rating	Symbol	Value	Units
Peak Pulse Power (tp=8/20 μs)	P_{PK}	100	W
ESD Voltage	V_{ESD}	25	kV
Operating Temperature	T_J	-50°C to 150 °C	°C
Storage Temperature	T_{STG}	-50°C to 150 °C	°C

ELECTRICAL CHARACTERISTICS

PJSD03TG						
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	$V_R=3.3V$	-	-	125	μA
Clamping Voltage(8/20 μs)	V_c	$I_{PP}=1A$	-	-	7	V
Off State Junction Capacitance	C_J	0Vdc Bias=f=1MHz	-	180	-	pF
Off State Junction Capacitance	C_J	3Vdc Bias=f=1MHz	-	100	-	pF



PJSD03TG~PJSD36TG

PJSD05TG						
Parameter	Symbol	Conditions	Min.	Typical	Max.	Units
Reverse Stand-Off Voltage	V_{RWM}	-	-	-	5	V
Reverse Breakdown Voltage	V_{BR}	$I_{BR}=1mA$	6	-	-	V
Reverse Leakage Current	I_R	$V_R=5V$	-	-	10	μA
Clamping Voltage(8/20 μs)	V_C	$I_{PP}=8.5A$	-	-	9.8	V
Off State Junction Capacitance	C_J	0Vdc Bias=f=1MHz	-	-	110	pF
Off State Junction Capacitance	C_J	5Vdc Bias=f=1MHz	-	65	-	pF

PJSD08TG						
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	$V_R=8V$	-	-	10	μA
Clamping Voltage(8/20 μs)	V_C	$I_{PP}=7.5A$	-	-	13.4	V
Off State Junction Capacitance	C_J	0Vdc Bias=f=1MHz	-	-	70	pF
Off State Junction Capacitance	C_J	8Vdc Bias=f=1MHz	-	40	-	pF

PJSD12TG						
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	$V_R=12V$	-	-	1	μA
Clamping Voltage(8/20 μs)	V_C	$I_{PP}=6.7A$	-	-	20	V
Off State Junction Capacitance	C_J	0Vdc Bias=f=1MHz	-	-	46	pF
Off State Junction Capacitance	C_J	12Vdc Bias=f=1MHz	-	30	-	pF

PJSD15TG						
Parameter	Symbol	Conditions	Min.	Typical	Max.	Units
Reverse Stand-Off Voltage	V_{RWM}	-	-	-	15	V
Reverse Breakdown Voltage	V_{BR}	$I_{BR}=1mA$	16.7	-	-	V
Reverse Leakage Current	I_R	$V_R=15V$	-	-	1	μA
Clamping Voltage(8/20 μs)	V_C	$I_{PP}=6A$	-	-	24	V
Off State Junction Capacitance	C_J	0Vdc Bias=f=1MHz	-	-	35	pF
Off State Junction Capacitance	C_J	15Vdc Bias=f=1MHz	-	20	-	pF



PJSD03TG~PJSD36TG

PJSD24TG						
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	$V_R=24V$	-	-	1	μA
Clamping Voltage(8/20 μs)	V_C	$I_{PP}=4.5A$	-	-	43	V
Off State Junction Capacitance	C_J	0Vdc Bias=f=1MHz	-	-	25	pF
Off State Junction Capacitance	C_J	24Vdc Bias=f=1MHz	-	14	-	pF

PJSD36TG						
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	$V_R=36V$	-	-	1	μA
Clamping Voltage(8/20 μs)	V_C	$I_{PP}=3A$	-	-	52	V
Off State Junction Capacitance	C_J	0Vdc Bias=f=1MHz	-	-	18	p
Off State Junction Capacitance	C_J	36Vdc Bias=f=1MHz	-	12	-	pF

PJSD03TG

PJ : Panjit

SD : Singal direction

03 : Voltage

TG : Package SOD-723



PJSD03TG~PJSD36TG

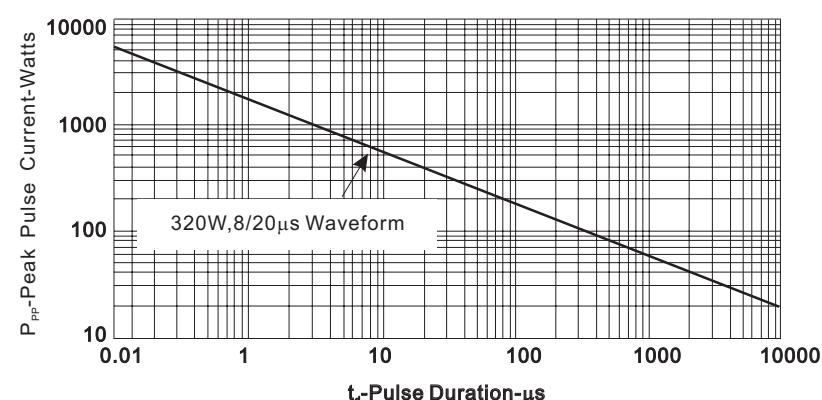
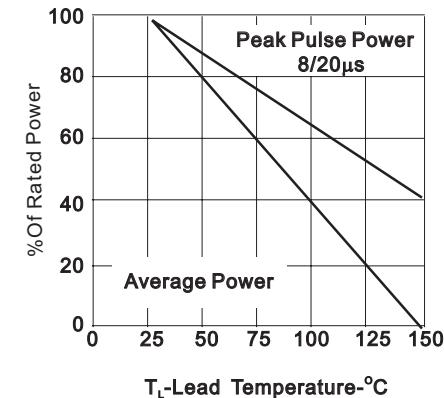
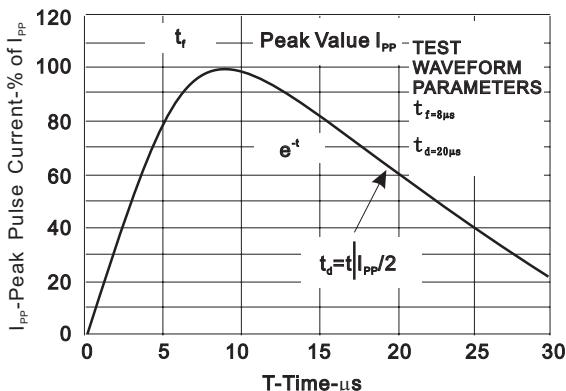


FIG. 3-Peak Pulse Power vs Pulse Time

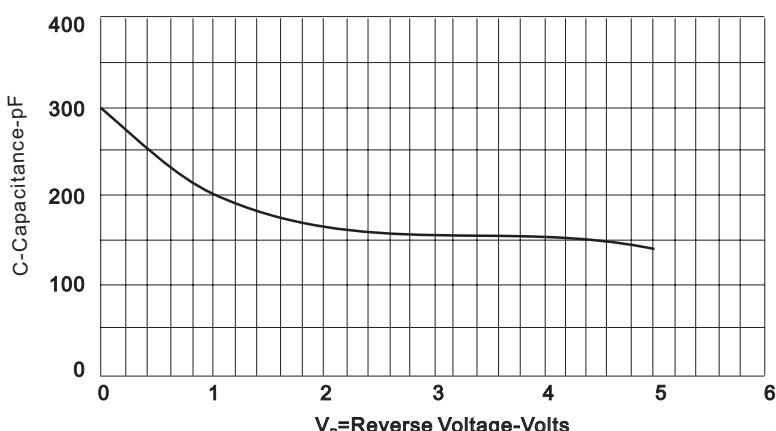
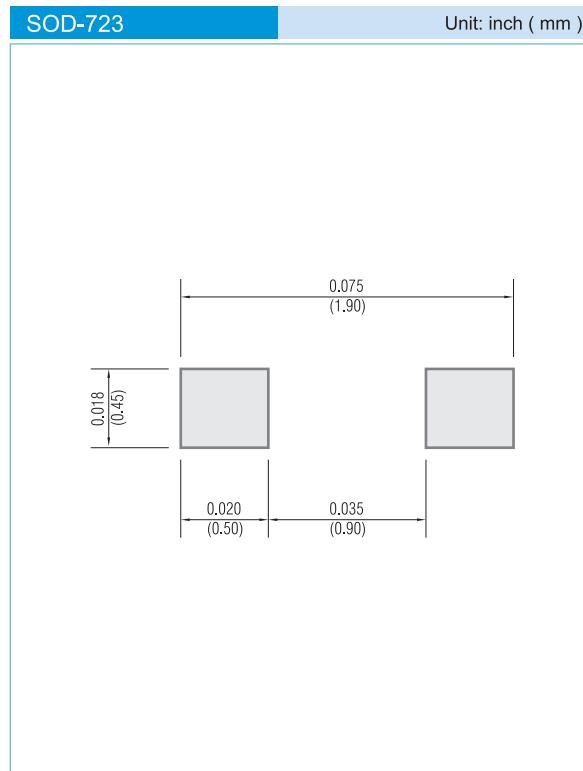


FIG. 4-Typical Reverse Voltage vs Capacitance



PJSD03TG~PJSD36TG

MOUNTING PAD LAYOUT



ORDER INFORMATION

- Packing information

T/R - 8K per 7" plastic Reel

LEGAL STATEMENT

Copyright PanJit International, Inc 2007

The information presented in this document is believed to be accurate and reliable. The specifications and information herein are subject to change without notice. Pan Jit makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose. Pan Jit products are not authorized for use in life support devices or systems. Pan Jit does not convey any license under its patent rights or rights of others.