PG12ESEL2

Single Line TVS Diode for ESD Protection in Portable Electronics

Protection in Portable Electronics Applications.

FEATURES

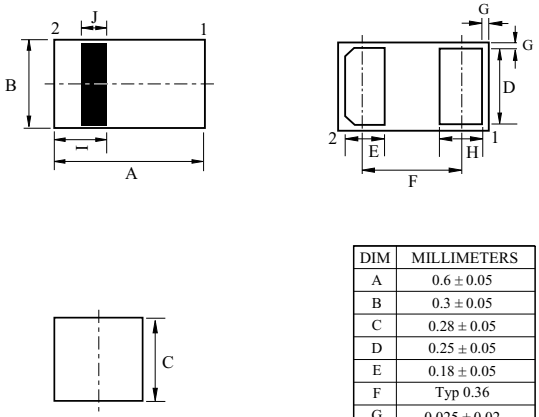
- 80 Watts peak pulse power (tp=8/20 μs)
- Transient protection for data lines to
  IEC 61000-4-2(ESD) 20kV(Air), 15kV(Contact)
  IEC 61000-4-5(Lightning) 3A(tp=8/20 μs)
- Small package for use in portable electronics.
- Protects on I/O or power line.
- Low leakage current.

ELP-2 (leadless-type)

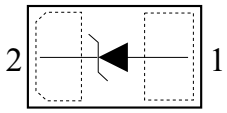
PRODUCT DESCRIPTION

- Molding compound flammability rating : UL 94V-0
- Pb-Free, Halogen-Free, RoHs Compliant

Package dimensions (ELP-2)	Pin configurations (Uni-directional)



DIM	MILLIMETERS
A	0.6 ± 0.05
B	0.3 ± 0.05
C	0.28 ± 0.05
D	0.25 ± 0.05
E	0.18 ± 0.05
F	Typ 0.36
G	0.025 ± 0.02
H	0.2 ± 0.05
I	Max 0.3
J	Typ 0.1



1. ANODE 2. CATHODE

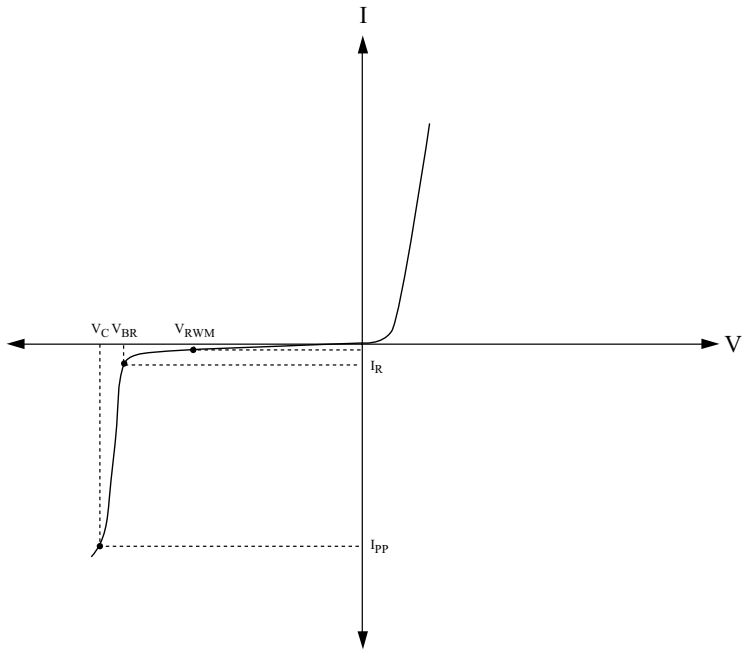
ORDERING INFORMATION

Part Number	Qty per Reel	Reel Size	Marking code
PG12ESEL2-RTK	5,000	7 inch	A
PG12ESEL2-RTL	10,000		

MAXIMUM RATING (Ta=25℃)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Peak Pulse Power (tp=8/20 μs)	P_{PK}	80	W
Peak Pulse Current (tp=8/20 μs)	I_{PP}	3	A
Junction Temperature	T_J	150	℃
Storage Temperature	T_{STG}	-55 150	℃

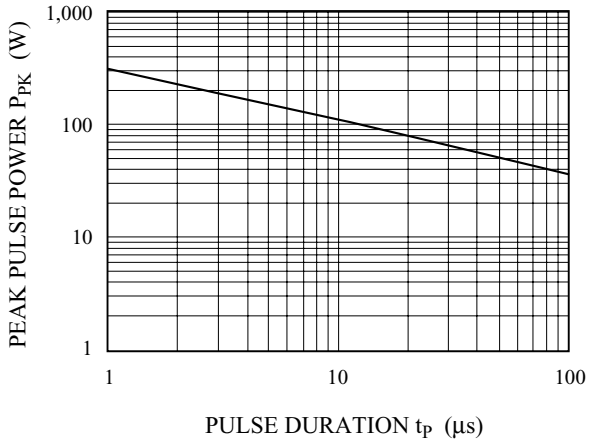
DEFINITIONS OF ELECTRICAL CHARACTERISTIC SYMBOL



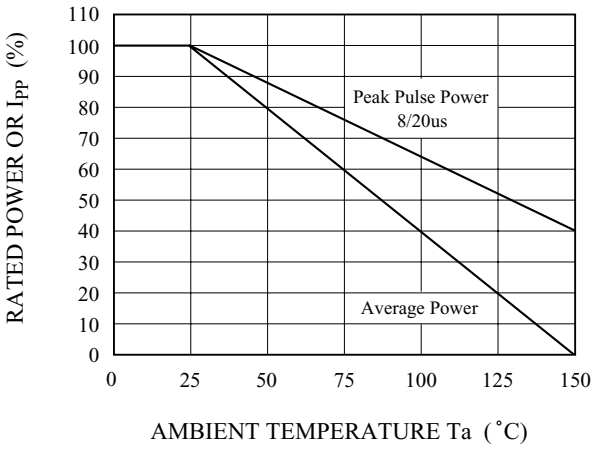
ELECTRICAL CHARACTERISTICS (Ta=25℃)

CHARACTERISTIC	SYMBOL	TEST CONDITION		MIN.	TYP.	MAX.	UNIT
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		-	-	1	uA
Clamping Voltage	V_C	I_{PP}=3A, tp=8/20 μs		-	-	27	V
Total Capacitance	C_T	V_R=0V, f=1MHz		-	-	20	pF
Electrostatic Discharge	V_{ESD}	IEC61000-4-2	Air	±20	-	-	kV
			Contact	±15			

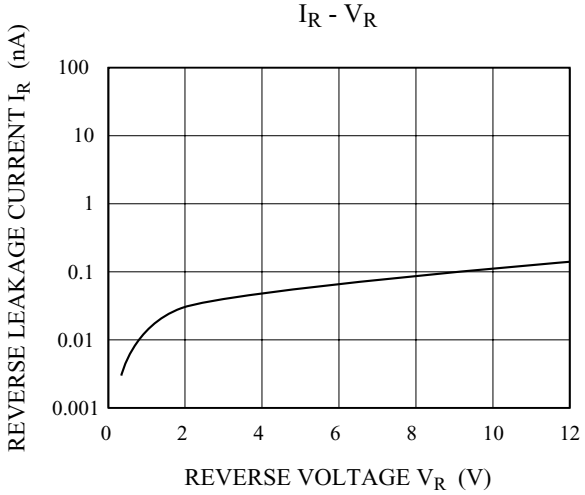
NON-REPETITIVE PEAK PULSE POWER VS. PULSE TIME



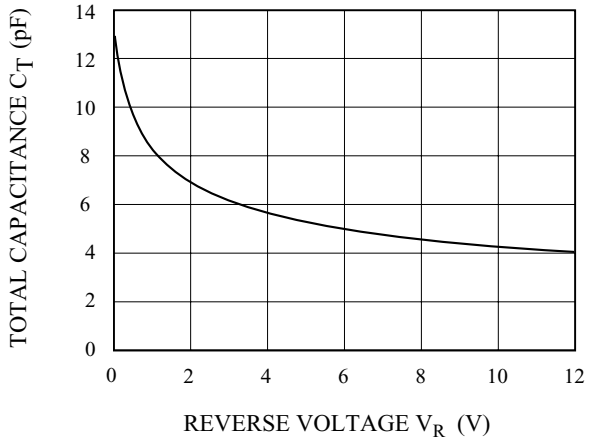
POWER DERATION CURVE



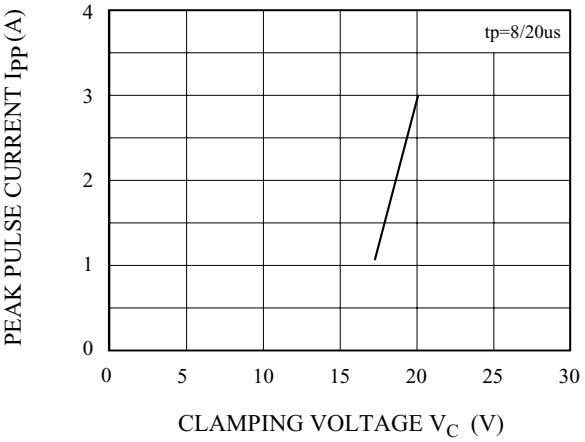
I_R - V_R



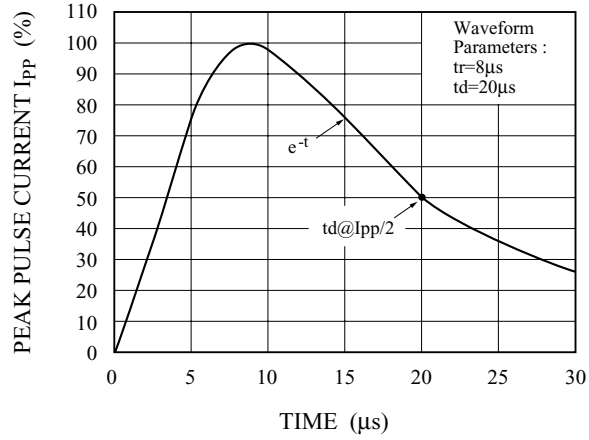
C_T - V_R



I_{PP} - V_C

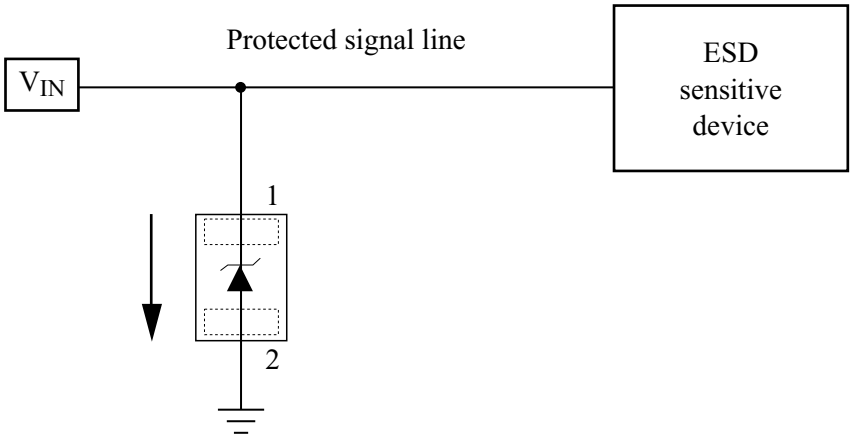


PULSE WAVEFORM



APPLICATIONS

· Cell phone handsets and accessories.
· Microprocessor based equipment.
· Personal digital assistants (PDA s)
· Notebooks, desktops, & servers.
· Portable instrumentation.
· Pagers peripherals.



Recommended pad dimension & Marking Information

Recommended pad dimension	Marking Code