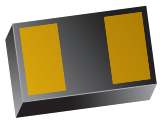
PG05DBEL2A

TVS Diode for ESD Protection in Portable Electronics

Protection in Portable Electronics Applications.

FEATURES



ELP-2A (leadless-type)

· Transient protection for data lines to

- IEC61000-4-2(ESD) : Air mode ±20kV/Contact mode ±15kV
- IEC61000-4-5(Lightning) 2A(tp=8/20 μs)

· Low capacitance C_T = 9pF(Max)

· Bi-directional, symmertrical working voltage up to : V_{RWM} = 5V

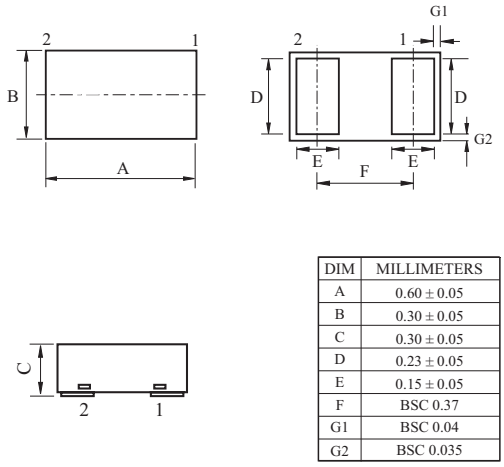
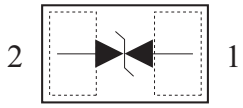
· Extremely small Size 0.6×0.3×0.3mm

· Low reverse current : 70nA typical (V_R=5V)

PRODUCT DESCRIPTION

· Molding compound flammability rating : UL 94V-0

· Pb-Free, Halogen-Free, RoHs Compliant

Package dimensions (ELP-2A)	Pin configurations (Bi-directional)
	

DIM	MILLIMETERS
A	0.60 ± 0.05
B	0.30 ± 0.05
C	0.30 ± 0.05
D	0.23 ± 0.05
E	0.15 ± 0.05
F	BSC 0.37
G1	BSC 0.04
G2	BSC 0.035

1. ANODE 2. ANODE

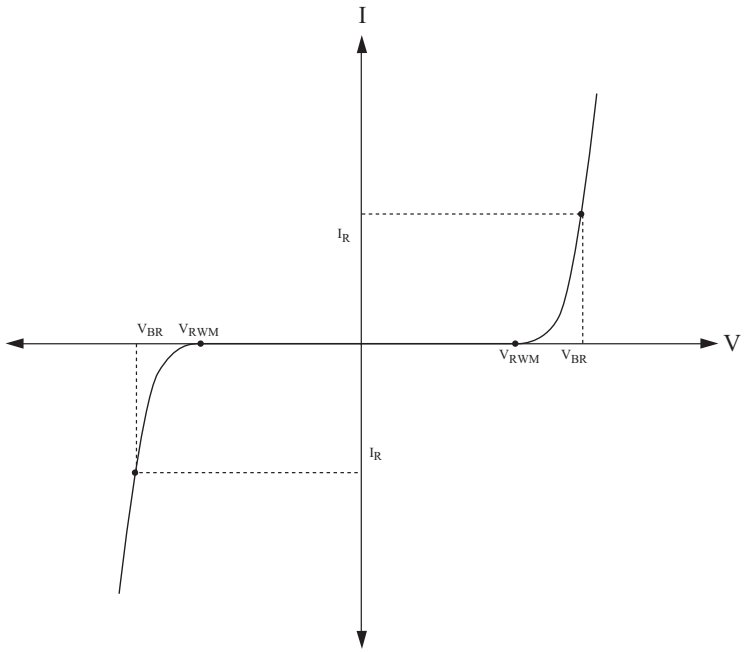
ORDERING INFORMATION

Part Number	Qty per Reel	Reel Size	Marking code
PG05DBEL2A-RTK	5,000	7 inch	B
PG05DBEL2A-RTL	10,000		
PG05DBEL2A-RTH	5,000		
PG05DBEL2A-RTR	10,000		

MAXIMUM RATING (Ta=25℃)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Peak Pulse Power (tp=8/20 μs)	P_{PK}	30	W
Peak Pulse Current(tp=8/20 μs)	I_{PP}	2	A
Junction Temperature	T_J	150	℃
Storage Temperature	T_{STG}	-55 150	℃

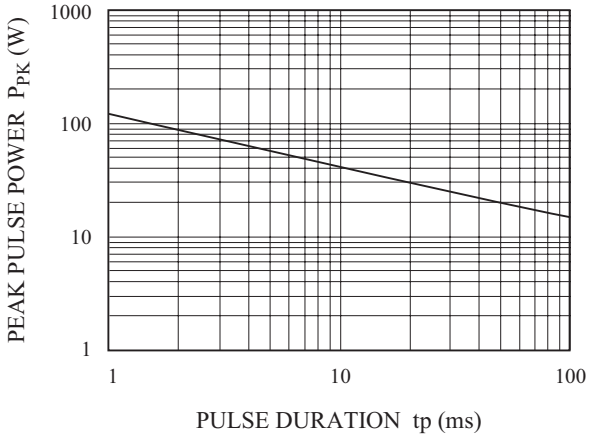
DEFINITIONS OF ELECTRICAL CHARACTERISTIC SYMBOL



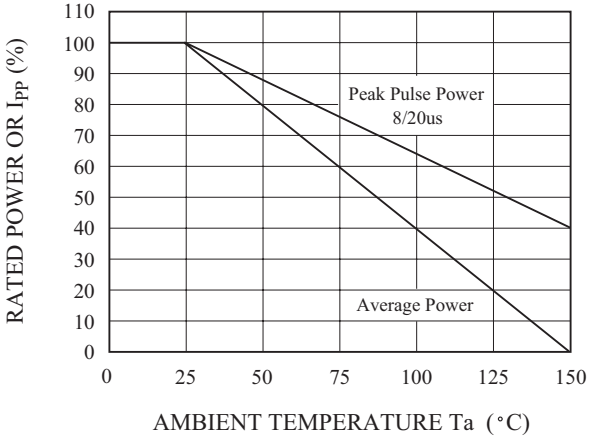
ELECTRICAL CHARACTERISTICS (Ta=25℃)

CHARACTERISTIC	SYMBOL	TEST CONDITION		MIN.	TYP.	MAX.	UNIT
Reverse Stand-Off Voltage	V_{RWM}	-		-	-	5	V
Reverse Breakdown Voltage	V_{BR}	I_t=1mA		5.8	7.5	7.8	V
Reverse Leakage Current	I_R	V_{RWM}=5V		-	70	100	nA
Clamping Voltage	V_C	I_{PP}=2A, tp=8/20 μs		-	12.5	15	V
		I_{TLP}=4A, tp=100ns		-	15	20	V
Total Capacitance	C_T	V_R=0V, f=1MHz		-	5	9	pF
Electrostatic Discharge	V_{ESD}	IEC61000-4-2	Air	±20	-	-	kV
			Contact	±15			

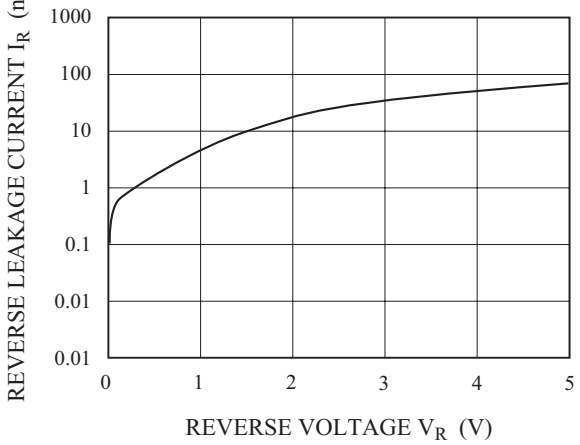
NON-REPETITIVE PEAK PULSE POWER VS. PULSE TIME



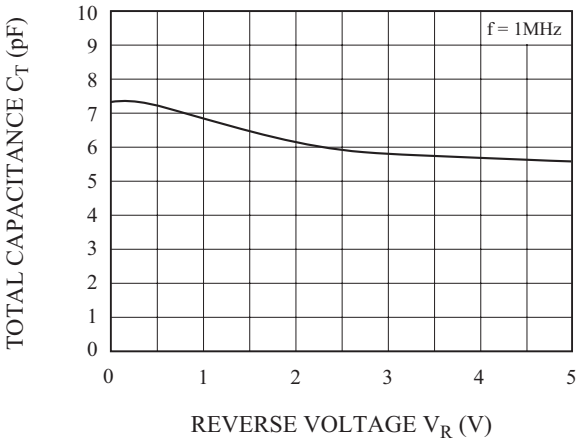
POWER DERATION CURVE



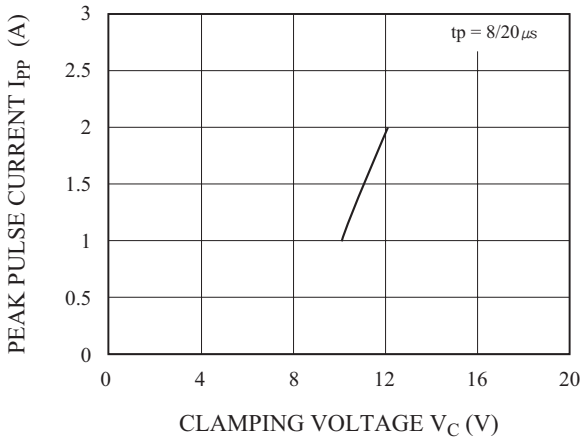
I_R - V_R



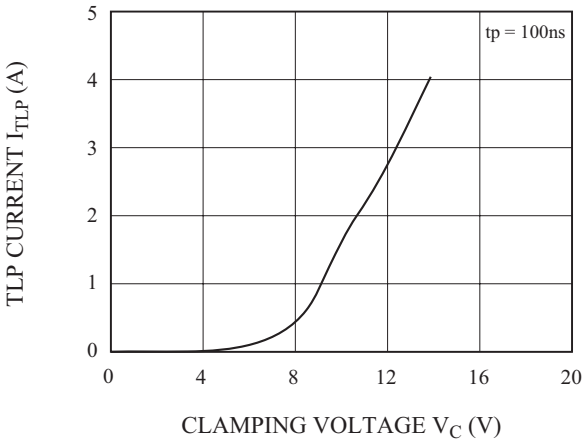
C_T - V_R



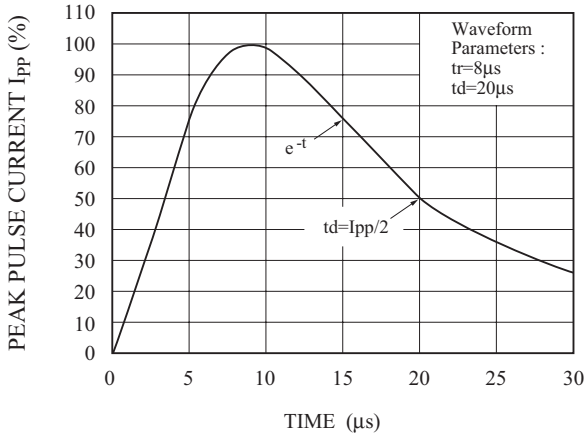
I_{PP} - V_C



I_{TLP} - V_C

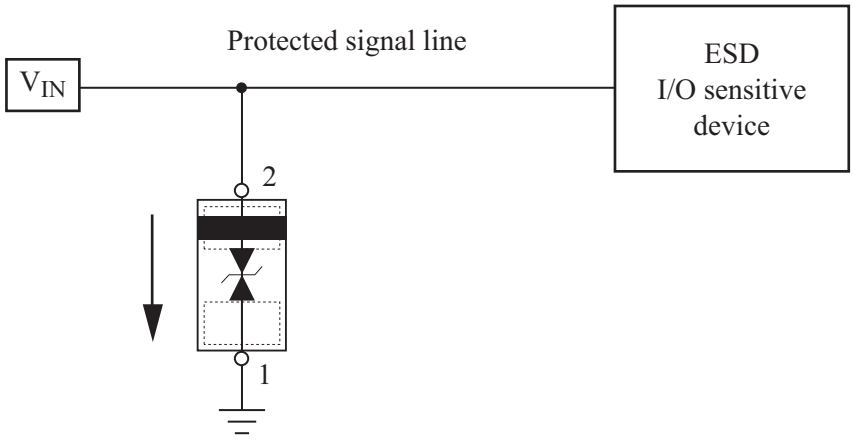


PULSE WAVEFORM



APPLICATIONS

- Cell phone handsets and accessories.
- Microprocessor based equipment.
- Notebooks, desktops, & servers.
- Portable instrumentation.
- Pagers peripherals.



Recommended pad dimension & Marking Information

Recommended pad dimension	Marking Code