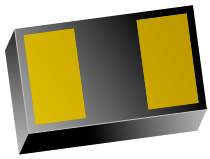
PS05CBEL2B

Single Line TVS Diode for ESD Protection in Portable Electronics

Protection in Portable Electronics Applications.

FEATURES



ELP-2B (leadless-type)

· Transient protection for data lines to

- IEC61000-4-2(ESD) : Air mode ±30kV / Contact mode ±30kV
- IEC 61000-4-5(Surge) : 5A(tp=8/20 μs)

· Low capacitance C_T = 9pF(Max)

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

· Extremely small Size 0.6×0.3×0.25mm

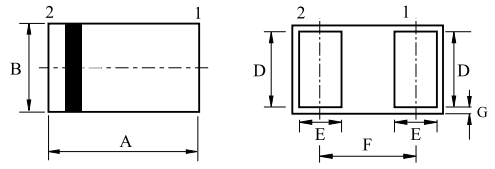
· Low reverse current : 10nA typical (V_{RWM}=5V)

PRODUCT DESCRIPTION

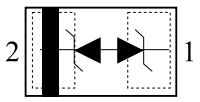
· Molding compound flammability rating : UL 94V-0

· Pb-Free, Halogen-Free, RoHs Compliant

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



DIM	MILLIMETERS
A	0.6 ± 0.035
B	0.3 ± 0.035
C	0.25 ± 0.015
C1	0.02+0.005/-0.02
D	0.22 ± 0.02
E	0.16 ± 0.02
F	Typ 0.335



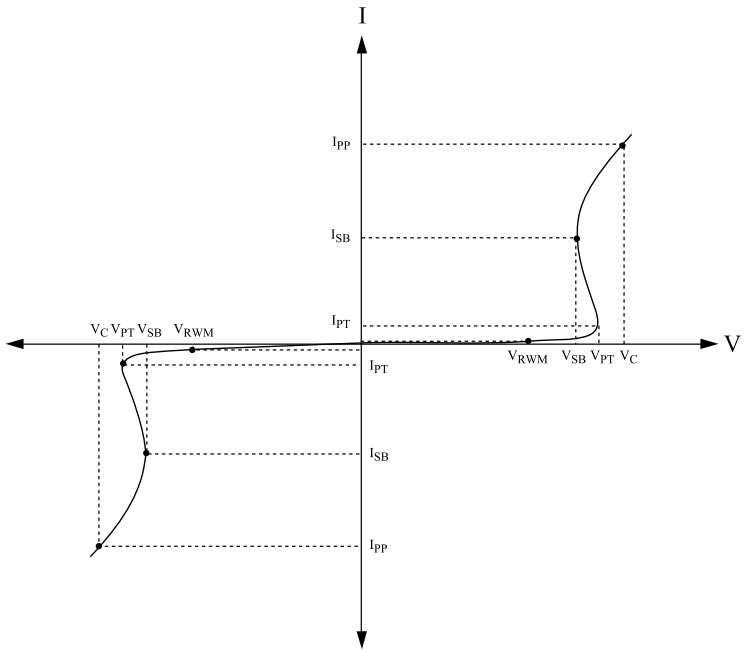
1. ANODE 2. ANODE

ORDERING INFORMATION

Part Number	Qty per Reel	Reel Size	Marking code
PS05CBEL2B-RTK	5,000	7 inch	T
PS05CBEL2B-RTL	10,000		
PS05CBEL2B-RTH	5,000		
PS05CBEL2B-RTR	10,000		

MAXIMUM RATING (Ta=25℃)

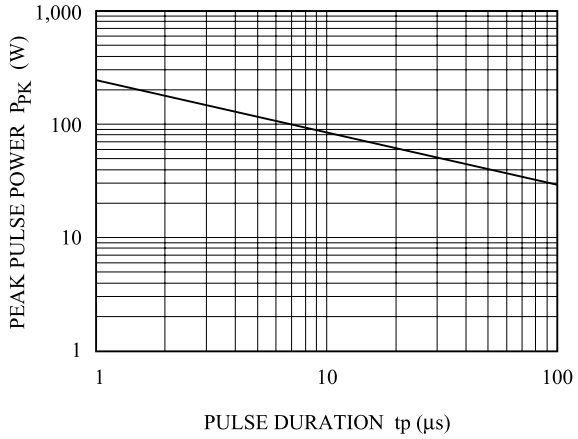
CHARACTERISTIC	SYMBOL	RATING	UNIT
Peak Pulse Power (tp=8/20 μs)	P_{PK}	60	W
Peak Pulse Current (tp=8/20 μs)	I_{PP}	5	A
Junction Temperature	T_J	150	℃
Storage Temperature	T_{stg}	-55 150	℃



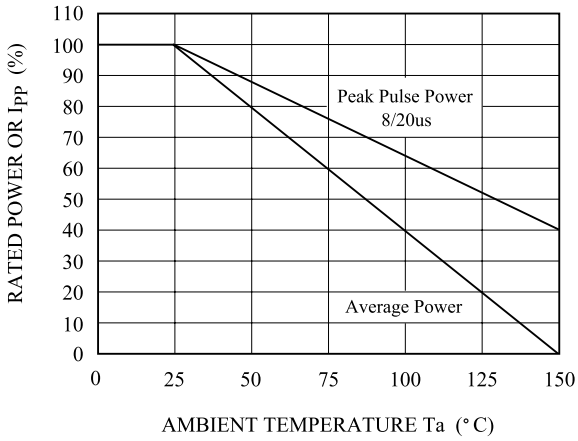
ELECTRICAL CHARACTERISTICS (Ta=25℃)

CHARACTERISTIC	SYMBOL	TEST CONDITION		MIN.	TYP.	MAX.	UNIT
Reverse Stand-Off Voltage	V_{RWM}	-		-	-	5	V
Reverse Leakage Current	I_R	V_{RWM}=5V		-	10	50	nA
Reverse Breakdown Voltage	V_{BR}	I_R=1mA		5.5	-	-	V
Punch-through Voltage	V_{PT}	I_{PT}=2 μA		6	8.2	9.5	V
Total Capacitance	C_T	V_R=0V, f=1MHz		-	6	9	pF
Clamping Voltage	V_C	I_{PP}=1A, tp=8/20 μs		-	-	8	V
		I_{PP}=5A, tp=8/20 μs		-	-	12	
		I_{TLP}=4A, tp=100ns		-	7	12	
		I_{TLP}=24A, tp=100ns		-	12	17	
Electrostatic Discharge	V_{ESD}	IEC61000-4-2	Air	±30	-	-	kV
			Contact	±30			

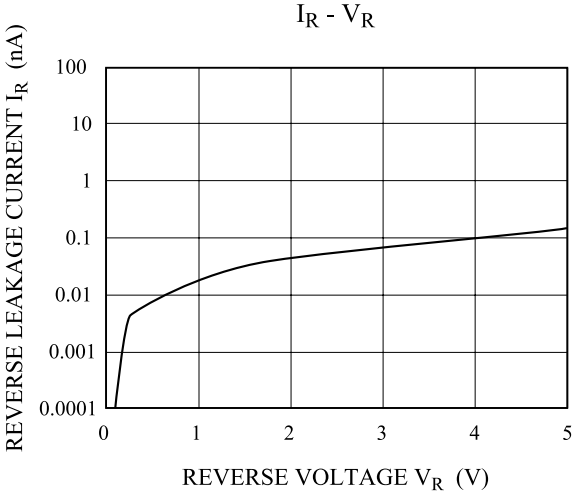
NON-REPETITIVE PEAK PULSE POWER VS. PULSE TIME



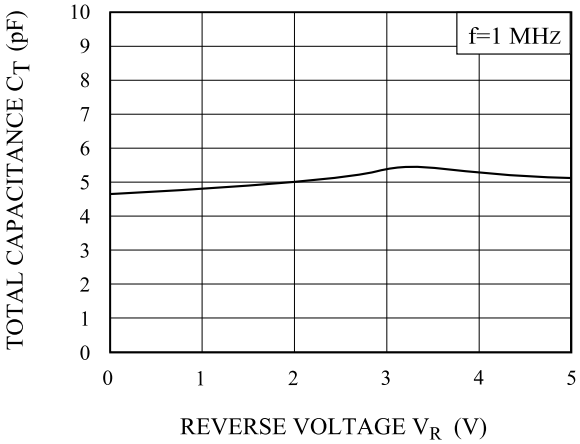
POWER DERATION CURVE



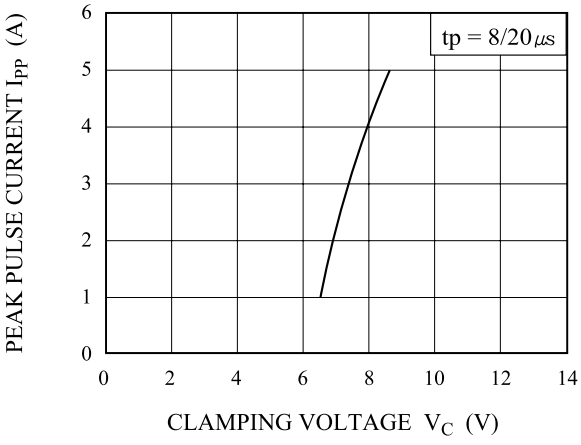
I_R - V_R



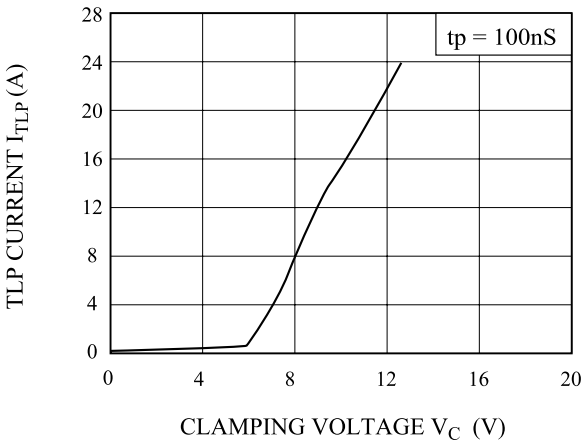
C_T - V_R



I_{PP} - V_C

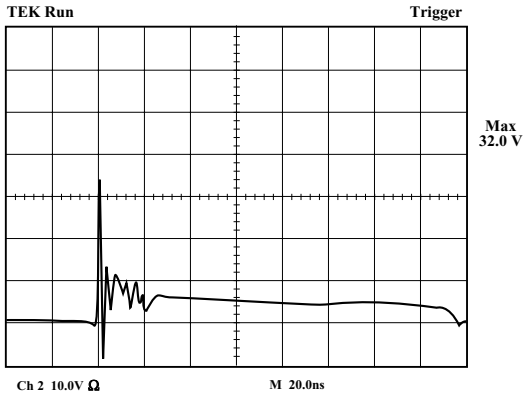


I_{TLP} - V_C



ESD Clamping

(+8 kV Contact per IEC 61000-4-2)



Note : Data is taken with a 10x attenuator

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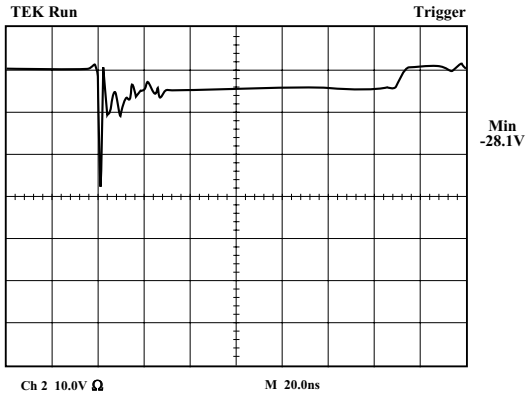

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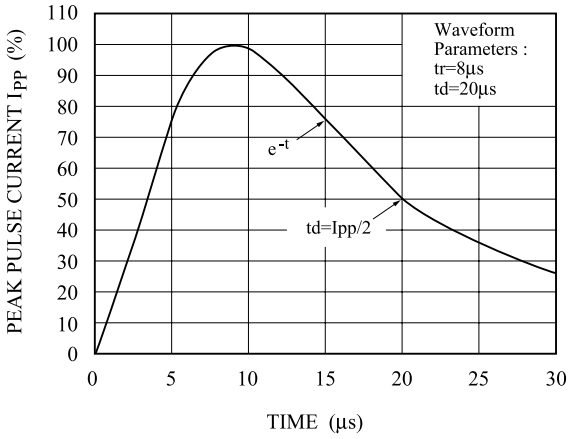
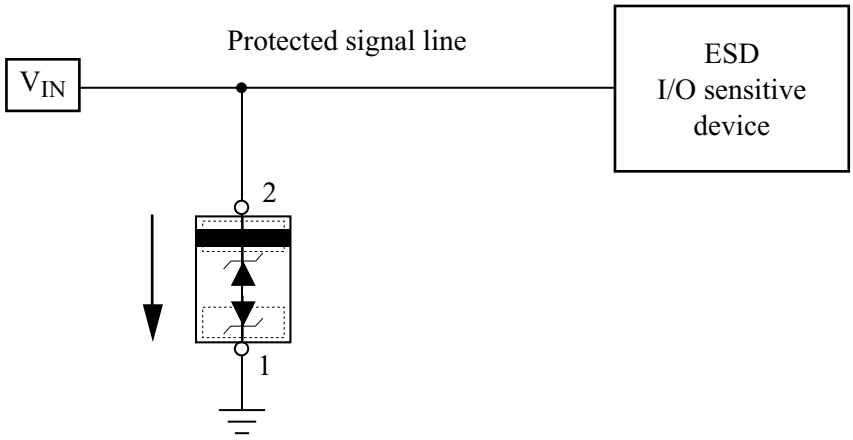
PULSE WAVEFORM



APPLICATIONS

- USB 2.0, 10/100/1000 Ethernet, DVI, HDMI, S-ATA
- MDDI Port
- LCD-Display, Camera
- GPS / FM Antennas
- LVDS
- High speed data lines



Recommended pad dimension & Marking Information

Recommended pad dimension	Marking Code