

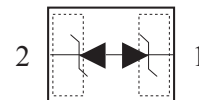
Protection in Portable Electronics Applications.

FEATURES

- Transient protection for data lines to
 - IEC61000-4-2(ESD) : Air mode $\pm 30\text{kV}$ / Contact mode $\pm 30\text{kV}$
 - IEC61000-4-4(EFT) : 7A ($t_p=8/20\mu\text{s}$)
- Low capacitance $C_T = 9\text{pF}(\text{Max})$
- Bi-directional, symmetrical working voltage up to : $V_{RWM} = \pm 3.3\text{V}$
- Extremely small Size $1.0 \times 0.6 \times 0.4\text{mm}$
- Low reverse current : $<10\text{nA}$ typical ($V_{RWM}=3.3\text{V}$)
- Non Suffix : ULP-2 Package ex) PS03CBUL2-RTL/H
- Suffix U : ULP-2 Package&Qualified to AEC-Q101 ex) PS03CBUL2-RTL/HU
- Suffix R : ULP-2(4) Package ex) PS03CBUL2-RTL/HR
- Suffix UR : ULP-2(4) Package&Qualified to AEC-Q101 ex) PS03CBUL2-RTL/HUR
- Suffix P : ULP-2(5) Package ex) PS03CBUL2-RTL/HP
- Suffix UP : ULP-2(5) Package&Qualified to AEC-Q101 ex) PS03CBUL2-RTL/HUP



ULP-2 (leadless-type)



1. CATHODE 2. CATHODE

Pin configurations (Bi-directional)

PRODUCT DESCRIPTION

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

Package dimensions (ULP-2)	Package dimensions (ULP-2(4))	Package dimensions (ULP-2(5))																																																				
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ORDERING INFORMATION

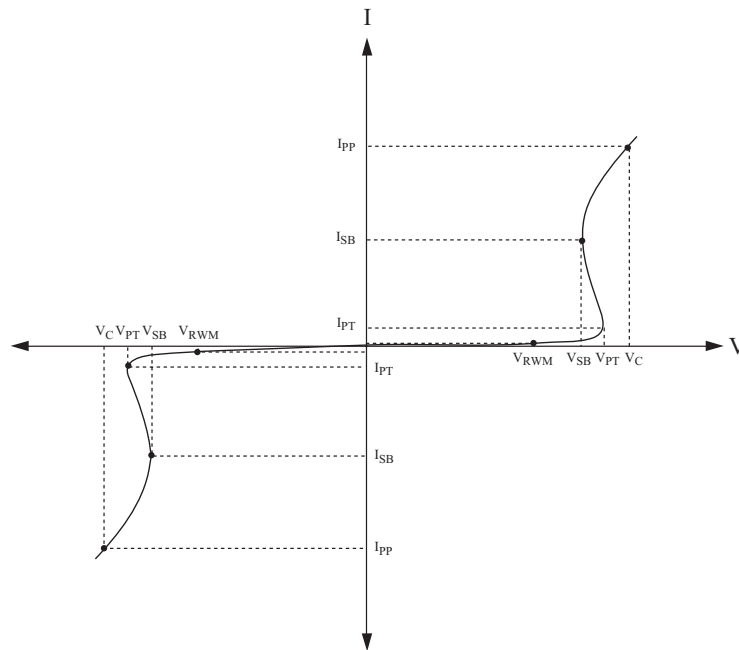
Part Number	Qty per Reel	Reel Size	Marking code
PS03CBUL2-RTL	10,000	7 inch	Z

PS03CBUL2

MAXIMUM RATING (Ta=25)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Peak Pulse Power (tp=8/20 μs)	P _{PK}	70	W
Peak Pulse Current (tp=8/20 μs)	I _{PP}	7	A
Junction Temperature	T _J	150	
Storage Temperature	T _{stg}	-55 150	

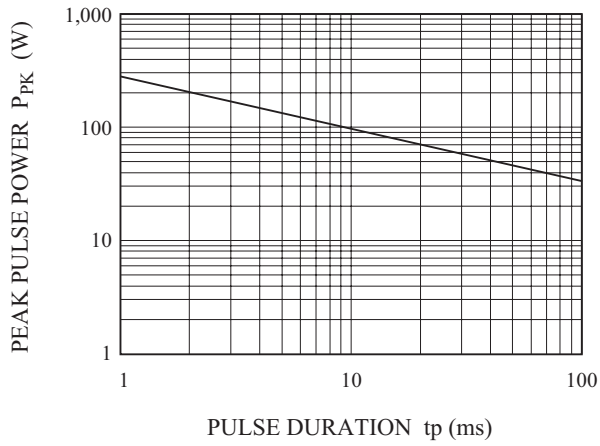
DEFINITIONS OF ELECTRICAL CHARACTERISTIC SYMBOL



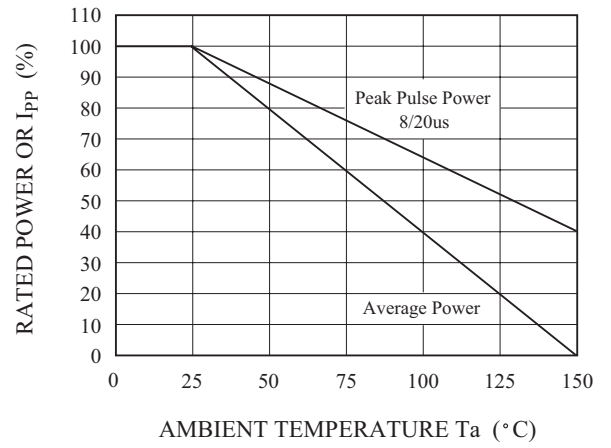
ELECTRICAL CHARACTERISTICS (Ta=25)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Reverse Stand-Off Voltage	V _{RWM}	-	-	-	3.3	V
Reverse Leakage Current	I _R	V _{RWM} =3.3V	-	10	50	nA
Snap-back Voltage	V _{SB}	I _{SB} =100 μA, I _{SB} =50mA	3.4	-	-	V
Punch-through Voltage	V _{PT}	I _{PT} =2 μA	3.5	4	4.4	V
Total Capacitance	C _T	V _R =0V, f=1MHz	-	6	9	pF
Clamping Voltage	V _C	I _{PP} =1A, tp=8/20 μs	-	-	5.5	V
		I _{PP} =4A, tp=8/20 μs	-	-	7.5	
		I _{PP} =7A, tp=8/20 μs	-	-	10	
		I _{TLP} =4A, tp=100ns	-	10	15	
		I _{TLP} =24A, tp=100ns	-	12	17	
Electrostatic Discharge	V _{ESD}	IEC61000-4-2	Air	± 30	-	kV
			Contact	± 30	-	

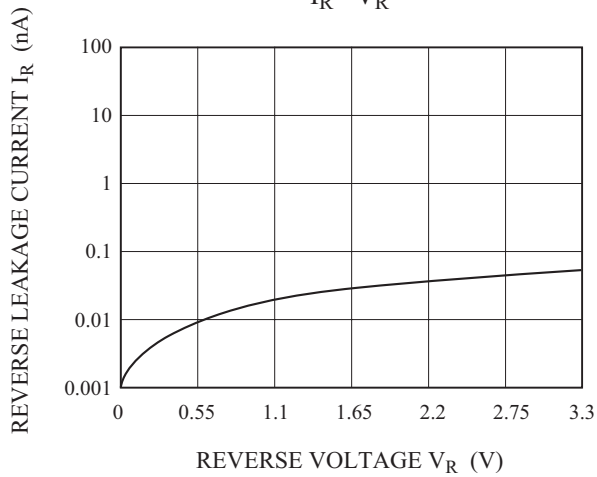
NON-REPETITIVE PEAK PULSE
POWER VS. PULSE TIME



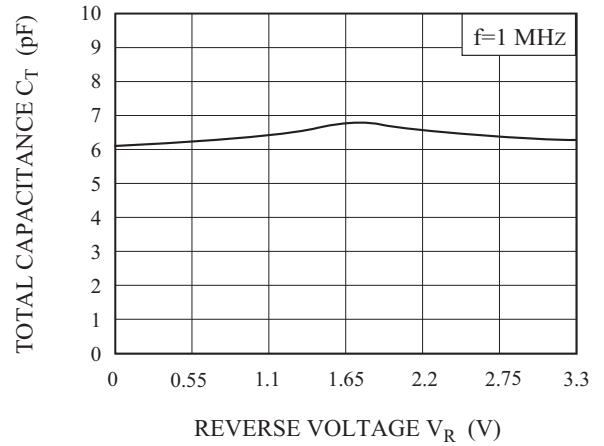
POWER DERATION CURVE



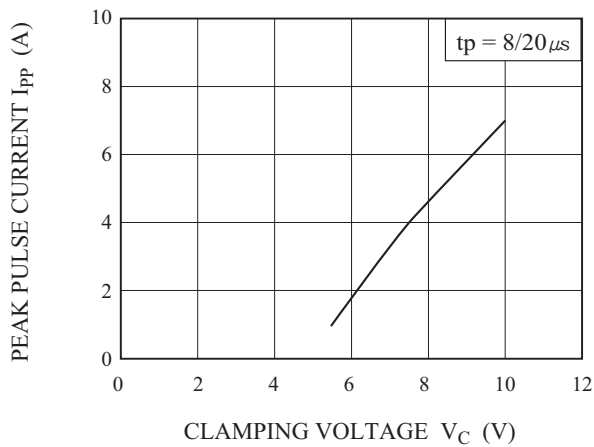
$I_R - V_R$



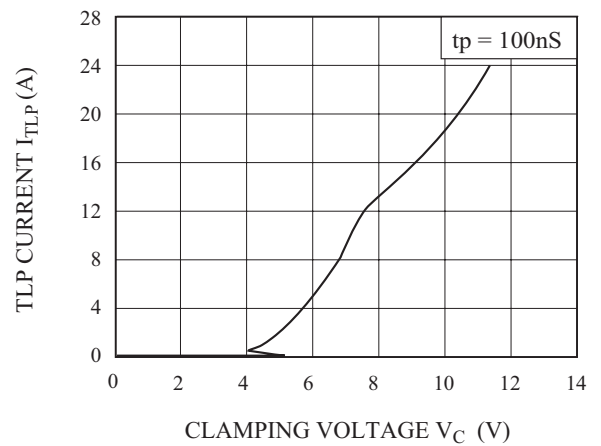
$C_T - V_R$



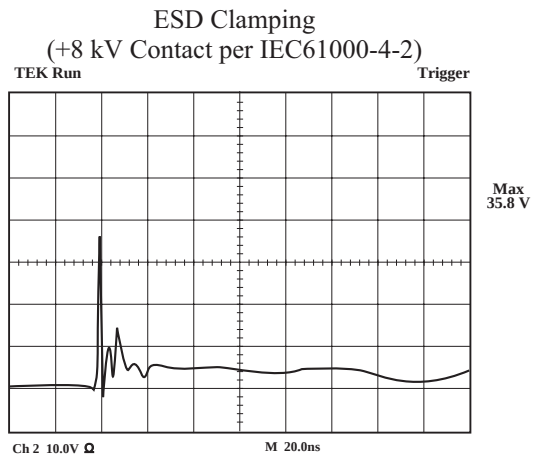
$I_{PP} - V_C$



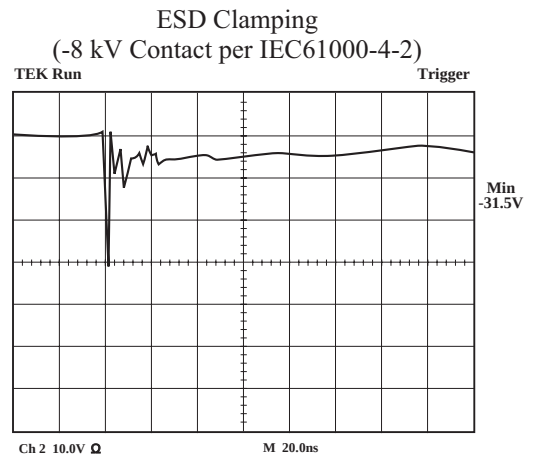
$I_{TLP} - V_C$



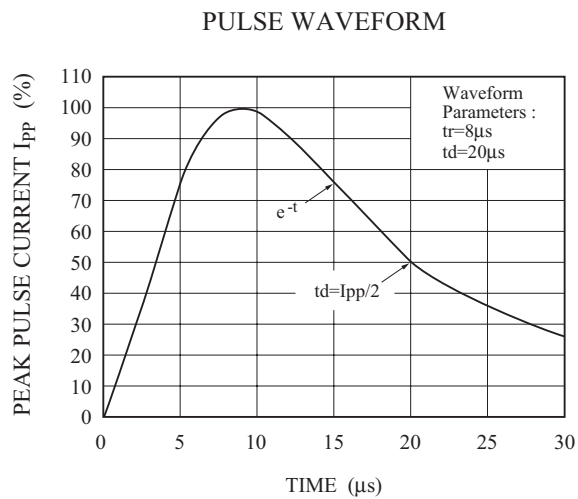
PS03CBUL2



Note : Data is taken with a 10x attenuator



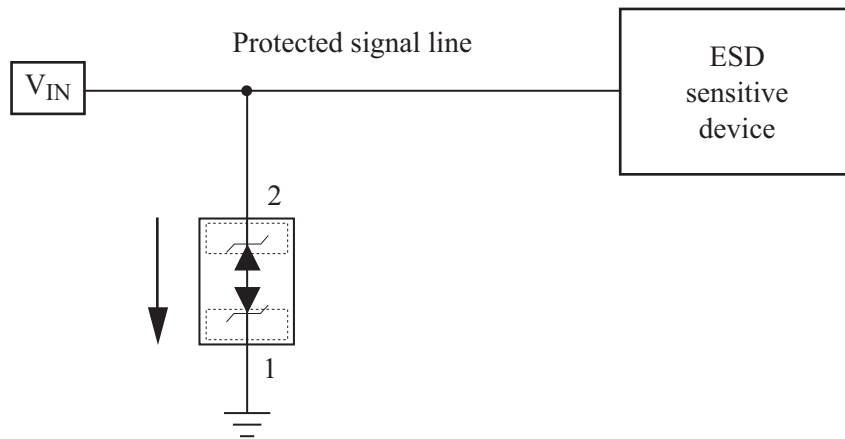
Note : Data is taken with a 10x attenuator



PS03CBUL2

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
The diagram shows two square pads. The top pad has a width of 1.4 and a height of 0.6. The bottom pad has a width of 0.55 and a height of 0.6. The distance between the centers of the two pads is 0.3. The total width of the layout is 0.85.	The diagram shows a rectangular pad with the letter 'Z' in the center. The pad is labeled with '2' on the left and '1' on the right.