

Protection in Portable Electronics Applications.

FEATURES

- Transient protection for data lines to
 - IEC61000-4-2(ESD) : Air mode $\pm 25\text{kV}$ / Contact mode $\pm 20\text{kV}$
 - IEC61000-4-4(EFT) : $\pm 50\text{A}$ (5/50ns)
 - IEC61000-4-5(Surge) : 4A (tp=8/20 μs)
- Low capacitance $C_T = 0.9\text{pF}(\text{Max})$
- Uni-directional, symmetrical working voltage up to : $V_{RWM} = 3.3\text{V}$
- Extremely small Size $0.6 \times 0.3 \times 0.3\text{mm}$
- Low reverse current : 5nA typical ($V_{RWM}=3.3\text{V}$)
- Suffix U : Qualified to AEC-Q101.
ex) PS03TSEL2A-RTL/HU



ELP-2A (leadless-type)

PRODUCT DESCRIPTION

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

Package dimensions (ELP-2A)	Pin configurations (Uni-directional)																		
<table border="1"> <thead> <tr> <th>DIM</th><th>MILLIMETERS</th></tr> </thead> <tbody> <tr> <td>A</td><td>0.60 ± 0.05</td></tr> <tr> <td>B</td><td>0.30 ± 0.05</td></tr> <tr> <td>C</td><td>0.30 ± 0.05</td></tr> <tr> <td>D</td><td>0.23 ± 0.05</td></tr> <tr> <td>E</td><td>0.15 ± 0.05</td></tr> <tr> <td>F</td><td>BSC 0.37</td></tr> <tr> <td>G1</td><td>BSC 0.04</td></tr> <tr> <td>G2</td><td>BSC 0.035</td></tr> </tbody> </table>	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. CATHODE
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ORDERING INFORMATION

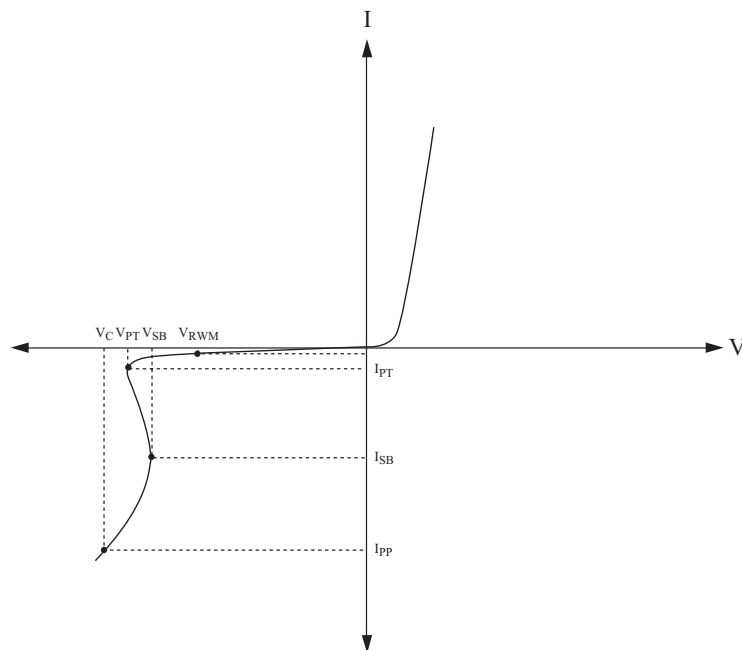
Part Number	Qty per Reel	Reel Size	Marking code
PS03TSEL2A-RTK	5,000	7 inch	H
PS03TSEL2A-RTL	10,000		
PS03TSEL2A-RTH	5,000		
PS03TSEL2A-RTR	10,000		

PS03TSEL2A

MAXIMUM RATING (Ta=25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Peak Pulse Power (tp=8/20 μs)	P _{PK}	50	W
Peak Pulse Current (tp=8/20 μs)	I _{PP}	4	A
Junction Temperature	T _J	150	°C
Storage Temperature	T _{STG}	-55 150	°C

DEFINITIONS OF ELECTRICAL CHARACTERISTIC SYMBOL

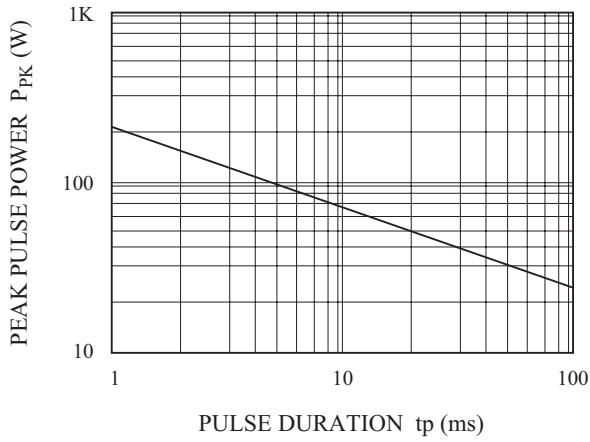


ELECTRICAL CHARACTERISTICS (Ta=25°C)

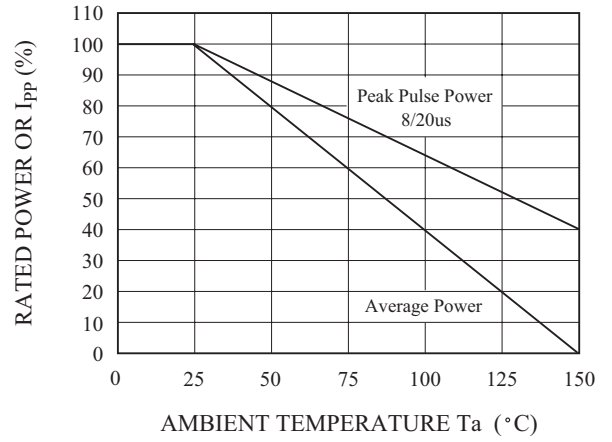
CHARACTERISTIC	SYMBOL	TEST CONDITION		MIN.	TYP.	MAX.	UNIT
Reverse Stand-Off Voltage	V _{RWM}	-		-	-	3.3	V
Reverse Leakage Current	I _R	V _{RWM} =3.3V		-	5	100	nA
Snap-back Voltage	V _{SB}	I _{SB} =1mA		4.5	-	-	V
Punch-through Voltage	V _{PT}	-		5	-	-	V
Total Capacitance	C _T	V _R =0V, f=1MHz		-	0.7	0.9	pF
Clamping Voltage	V _C	I _{PP} =1A, tp=8/20 μs		-	-	11	V
		I _{PP} =4A, tp=8/20 μs		-	-	14	
		I _{TLP} =4A, tp=100ns		-	10	14	
		I _{TLP} =20A, tp=100ns		-	20	24	
Electrstatic Discharge	V _{ESD}	IEC61000-4-2	Air	±25	-	-	kV
			Contact	±20			

PS03TSEL2A

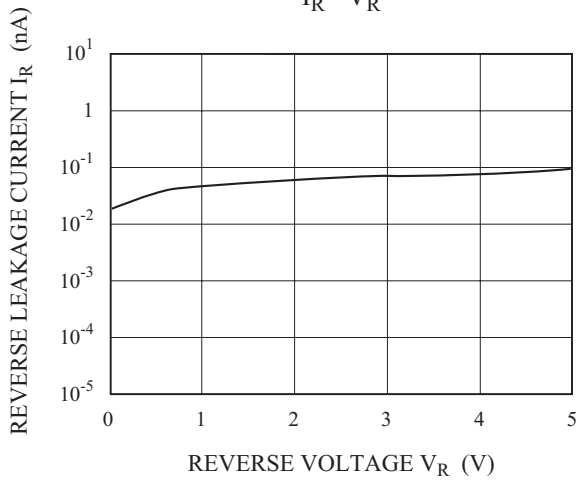
NON-REPETITIVE PEAK PULSE
POWER VS. PULSE TIME



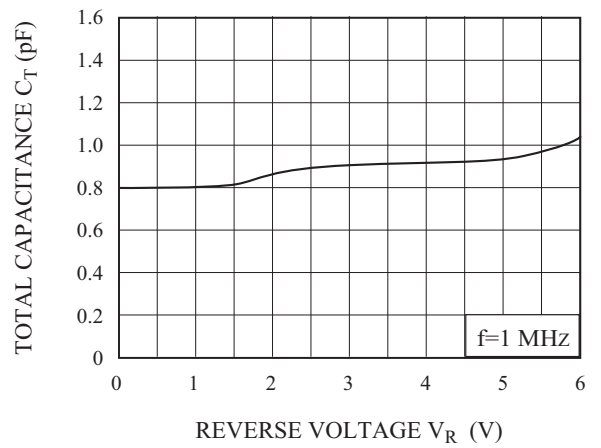
POWER DERATION CURVE



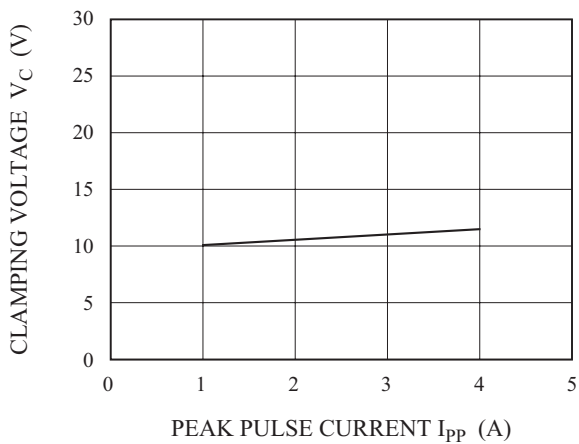
$I_R - V_R$



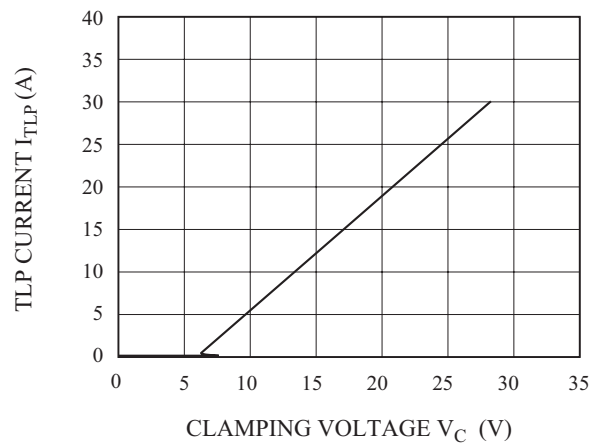
$C_T - V_R$



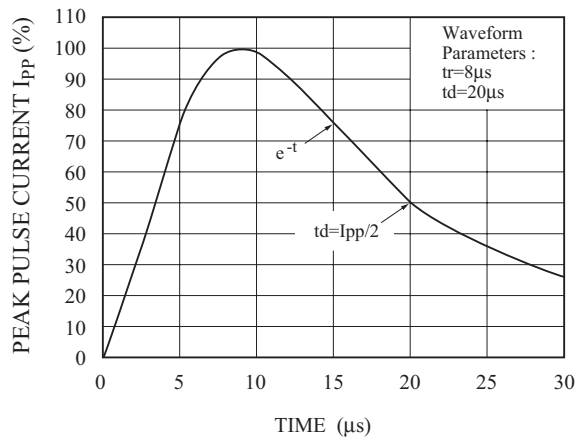
$V_C - I_{PP}$



$I_{TLP} - V_C$



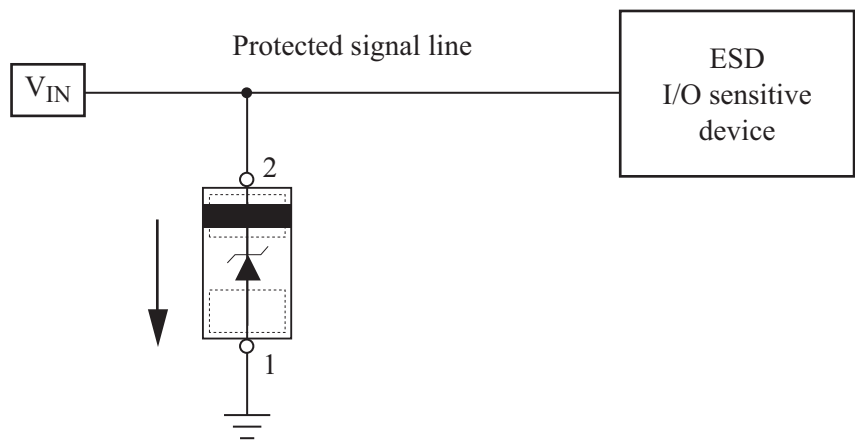
PULSE WAVEFORM



PS03TSEL2A

APPLICATIONS

- USB 2.0, USB 3.0, 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 rectangular pads. The distance between the centers of the two pads is 0.4. The width of each pad is 0.21. The height of each pad is 0.3.	The diagram shows a rectangular marking area. On the left side, there is a vertical black bar labeled 'CATHODE MARK'. To the right of this bar is the letter 'H'. The left side of the rectangle is labeled '2' and the right side is labeled '1'.