

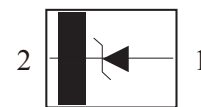
Protection in Portable Electronics Applications.

FEATURES

- Transient protection for data lines to
 - IEC61000-4-2(ESD) : Air mode $\pm 15\text{kV}$ / Contact mode $\pm 12\text{kV}$
 - IEC61000-4-5(Surge) : $2.5\text{A}(t_p=8/20\mu\text{s})$
- Low capacitance $C_T = 20\text{pF}(\text{Max})$
- Uni-directional, symmetrical working voltage up to : $V_{RWM} = 36\text{V}$
- Package Size $1.0 \times 0.6 \times 0.4\text{mm}$
- Non Suffix : ULP-2 Package ex) PG36DSUL2-RTL/H
- Suffix U : ULP-2 Package& Qualified to AEC-Q101 ex) PG36DSUL2-RTL/HU
- Suffix R : ULP-2(4) Package ex) PG36DSUL2-RTL/HR
- Suffix UR : ULP-2(4) Package&Qualified to AEC-Q101 ex) PG36DSUL2-RTL/HUR
- Suffix P : ULP-2(5) Package ex) PG36DSUL2-RTL/HP
- Suffix UP : ULP-2(5) Package&Qualified to AEC-Q101 ex) PG07DBUL2-RTL/HUP



ULP-2 (leadless-type)



1. ANODE 2. CATHODE

Pin configurations (Uni-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))																																																				
<table><tr><th>DIM</th><th>MILLIMETERS</th></tr><tr><td>A</td><td>1.0±0.05</td></tr><tr><td>B</td><td>0.6±0.05</td></tr><tr><td>C</td><td>0.4±0.05</td></tr><tr><td>C1</td><td>0.38^{+0.02}_{-0.03}</td></tr><tr><td>D</td><td>0.5±0.03</td></tr><tr><td>E</td><td>0.25±0.03</td></tr><tr><td>G</td><td>0.65±0.03</td></tr><tr><td>H</td><td>0.05</td></tr><tr><td>I</td><td>Max 0.05</td></tr></table>	DIM	MILLIMETERS	A	1.0±0.05	B	0.6±0.05	C	0.4±0.05	C1	0.38 ^{+0.02} _{-0.03}	D	0.5±0.03	E	0.25±0.03	G	0.65±0.03	H	0.05	I	Max 0.05	<table><tr><th>DIM</th><th>MILLIMETERS</th></tr><tr><td>A</td><td>1.00±0.10</td></tr><tr><td>B</td><td>0.60±0.10</td></tr><tr><td>C</td><td>0.40±0.05</td></tr><tr><td>D</td><td>0.50±0.05</td></tr><tr><td>E</td><td>0.25±0.05</td></tr><tr><td>G</td><td>Typ. 0.65</td></tr><tr><td>H</td><td>0.05±0.05</td></tr></table>	DIM	MILLIMETERS	A	1.00±0.10	B	0.60±0.10	C	0.40±0.05	D	0.50±0.05	E	0.25±0.05	G	Typ. 0.65	H	0.05±0.05	<table><tr><th>DIM</th><th>MILLIMETERS</th></tr><tr><td>A</td><td>1.00±0.05</td></tr><tr><td>B</td><td>0.60±0.05</td></tr><tr><td>C</td><td>0.50±0.05</td></tr><tr><td>D</td><td>0.50±0.03</td></tr><tr><td>E</td><td>0.25±0.03</td></tr><tr><td>G</td><td>0.65 BSC</td></tr><tr><td>I</td><td>Max 0.03</td></tr></table>	DIM	MILLIMETERS	A	1.00±0.05	B	0.60±0.05	C	0.50±0.05	D	0.50±0.03	E	0.25±0.03	G	0.65 BSC	I	Max 0.03
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ORDERING INFORMATION

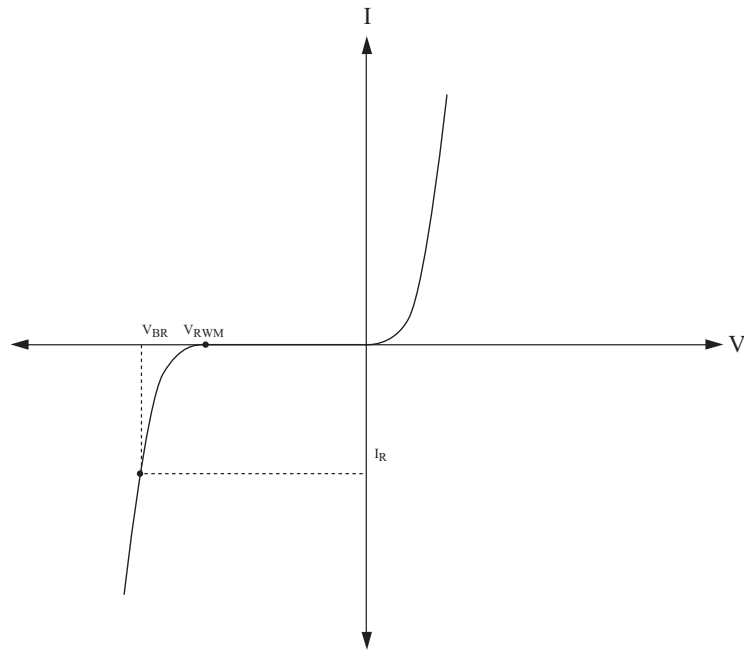
Part Number	Qty per Reel	Reel Size	Marking code
PG36DSUL2-RTL	10,000	7 inch	DS

PG36DSUL2

MAXIMUM RATING (Ta=25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Peak Pulse Power (tp=8/20 μs)	P _{PK}	150	W
Peak Pulse Current (tp=8/20 μs)	I _{PP}	2.5	A
Junction Temperature	T _J	150	°C
Storage Temperature	T _{stg}	-55 150	°C

DEFINITIONS OF ELECTRICAL CHARACTERISTIC SYMBOL

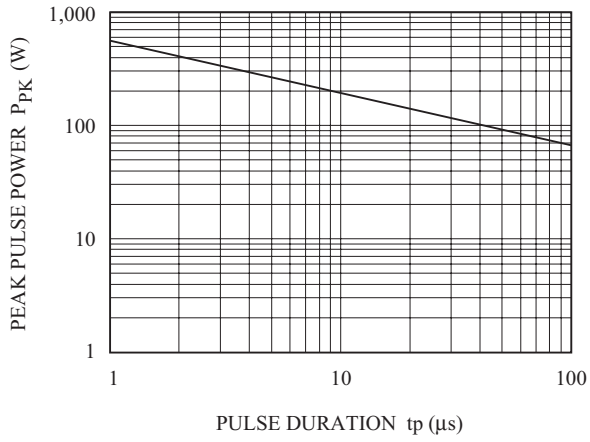


ELECTRICAL CHARACTERISTICS (Ta=25°C)

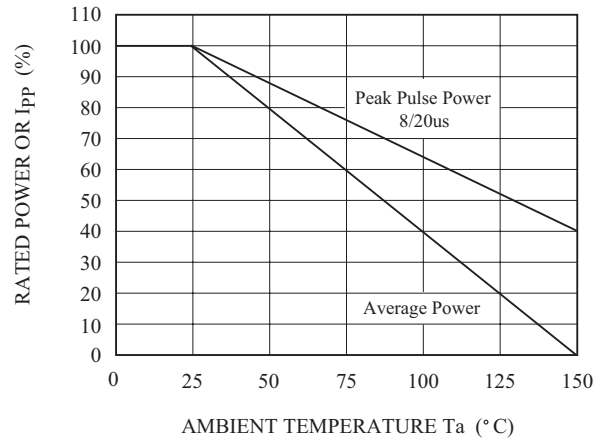
CHARACTERISTIC	SYMBOL	TEST CONDITION		MIN.	TYP.	MAX.	UNIT
Reverse Stand-Off Voltage	V _{RWM}	-		-	-	36	V
Reverse Breakdown Voltage	V _{BR}	I _t =1mA		38	-	-	V
Reverse Leakage Current	I _R	V _{RWM} =36V		-	-	100	nA
Clamping Voltage	V _C	I _{PP} =1A, tp=8/20 μs (IEC61000-4-5)		-	45	50	V
		I _{PP} =2.5A, tp=8/20 μs (IEC61000-4-5)		-	55	60	
Total Capacitance	C _T	V _R =0V, f=1MHz		-	15	20	pF
Electrostatic Discharge	V _{ESD}	IEC61000-4-2	Air	±15	-	-	kV
			Contact	±12			

PG36DSUL2

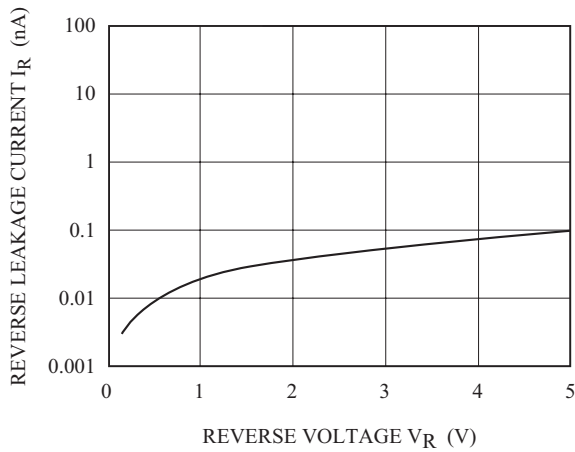
NON-REPETITIVE PEAK PULSE
POWER VS. PULSE TIME



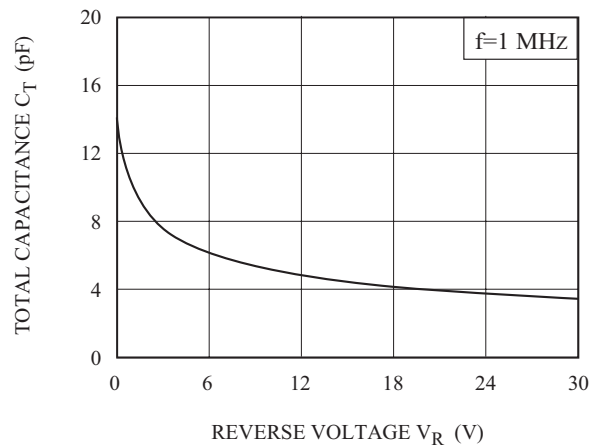
POWER DERATION CURVE



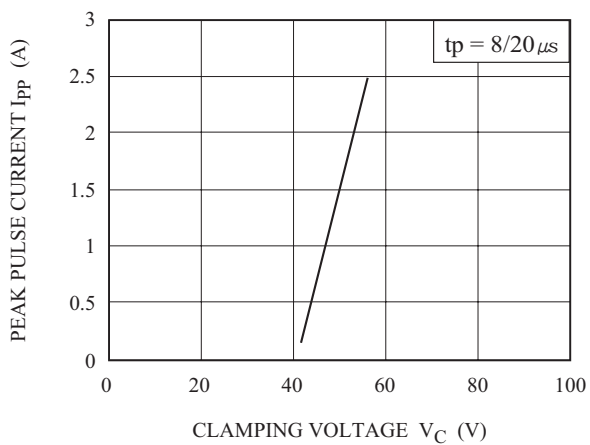
$I_R - V_R$



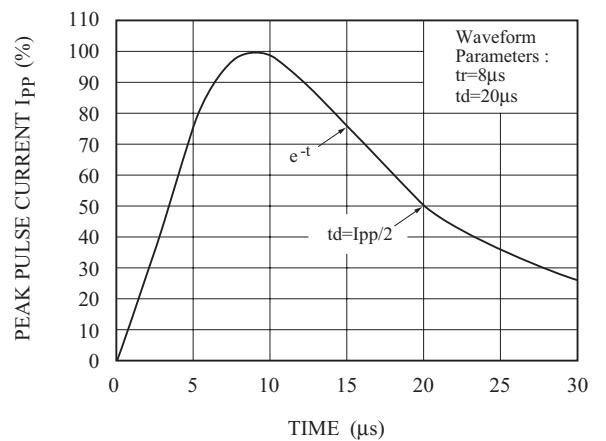
$C_T - V_R$



$I_{PP} - V_C$

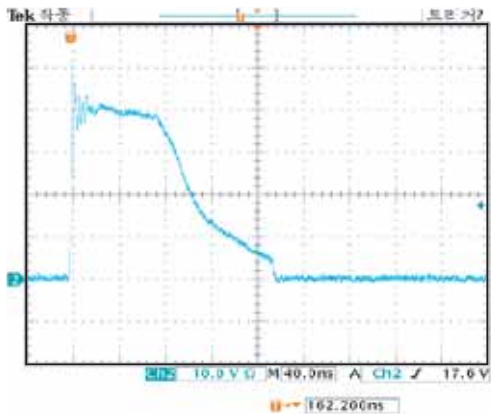


PULSE WAVEFORM

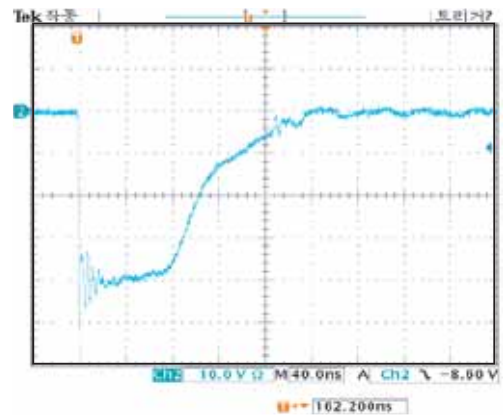


PG36DSUL2

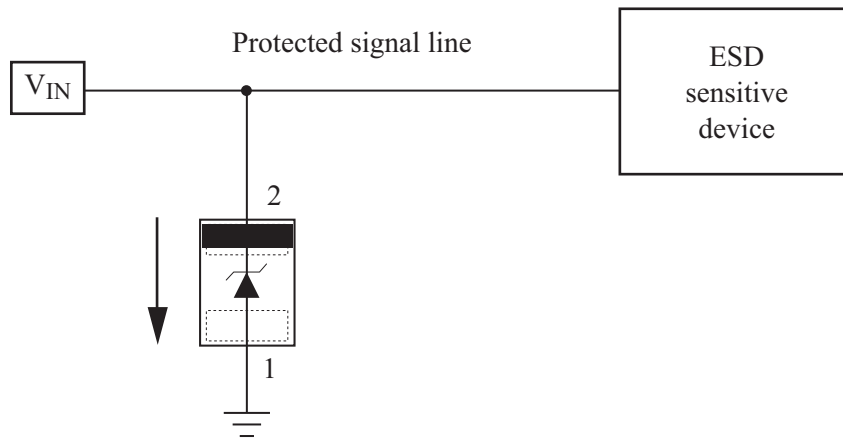
ESD Clamping
(+8 kV Contact per IEC 61000-4-2)



ESD Clamping
(-8 kV Contact per IEC 61000-4-2)



PG36DSUL2



Recommended pad dimension & Marking Information

Recommended pad dimension	Marking Code
1.4 0.55 0.6 0.3 0.85	CATHODE MARK 2 DS 1