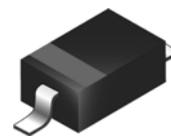


Low Clamping Voltage

Bi-directional ESD / Transient Protection Diodes

FEATURES

- Transient protection for data lines to
 - IEC61000-4-2(ESD) : Air mode $\pm 30\text{kV}$ / Contact mode $\pm 30\text{kV}$
 - IEC61000-4-5(Surge) : $3.8\text{A}(t_p=8/20 \mu\text{s})$
- Bi-directional working voltage up to : $V_{\text{RWM}} = \pm 24\text{V}$
- Suffix U : Qualified to AEC-Q101
ex) PG24DBUSC-RTK/HU



USC (Lead-type)

PRODUCT DESCRIPTION

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

Package dimensions (USC)	Pin configurations (Bi-directional)																				
Unit : mm <table border="1"> <thead> <tr> <th>DIM</th><th>MILLIMETERS</th></tr> </thead> <tbody> <tr><td>A</td><td>2.50 ± 0.20</td></tr> <tr><td>B</td><td>1.25 ± 0.05</td></tr> <tr><td>C</td><td>0.90 ± 0.05</td></tr> <tr><td>D</td><td>0.30 ± 0.06</td></tr> <tr><td>E</td><td>1.70 ± 0.05</td></tr> <tr><td>F</td><td>0.27 ± 0.10</td></tr> <tr><td>G</td><td>0.126 ± 0.03</td></tr> <tr><td>H</td><td>0 ~ 0.1</td></tr> <tr><td>K</td><td>0.40 ± 0.10</td></tr> </tbody> </table>	DIM	MILLIMETERS	A	2.50 ± 0.20	B	1.25 ± 0.05	C	0.90 ± 0.05	D	0.30 ± 0.06	E	1.70 ± 0.05	F	0.27 ± 0.10	G	0.126 ± 0.03	H	0 ~ 0.1	K	0.40 ± 0.10	1. CATHODE 2. CATHODE
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ORDERING INFORMATION

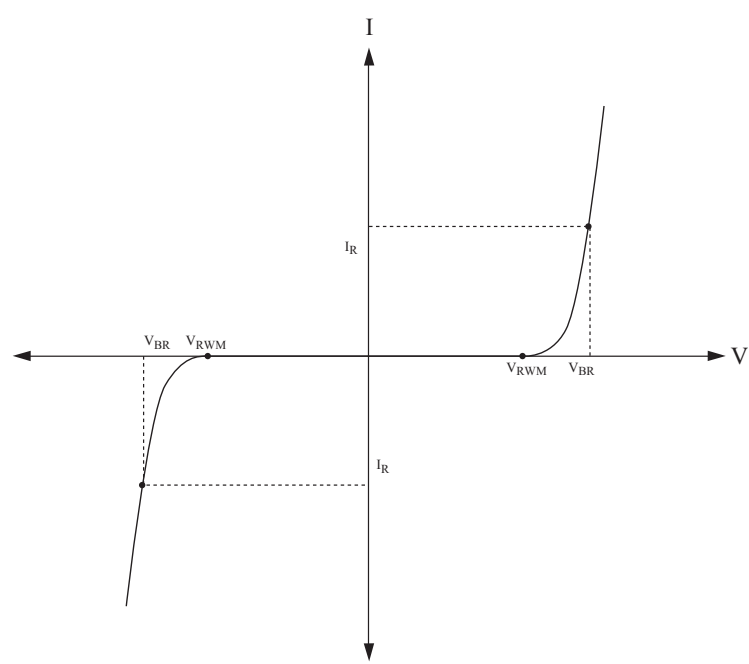
Part Number	Qty per Reel	Reel Size	Marking code
PG24DBUSC-RTK/HU	3,000	7 inch	PB

PG24DBUSC

MAXIMUM RATING (Ta=25℃)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Peak Pulse Power (tp=8/20 μs)	P _{PK}	190	W
Peak Pulse Current (tp=8/20 μs)	I _{PP}	3.8	A
Junction Temperature	T _J	150	℃
Storage Temperature	T _{STG}	-55 ~ 150	℃

DEFINITIONS OF ELECTRICAL CHARACTERISTIC SYMBOL

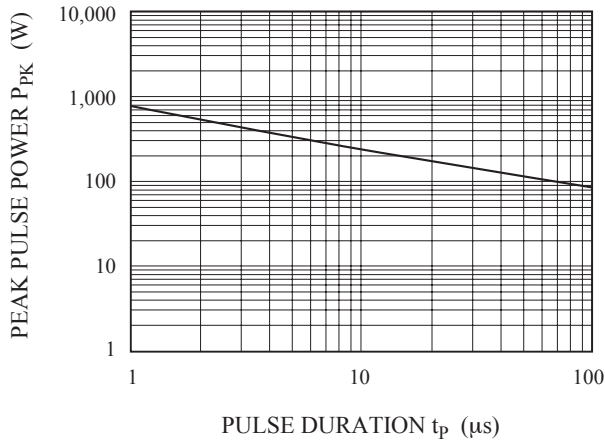


ELECTRICAL CHARACTERISTICS (Ta=25℃)

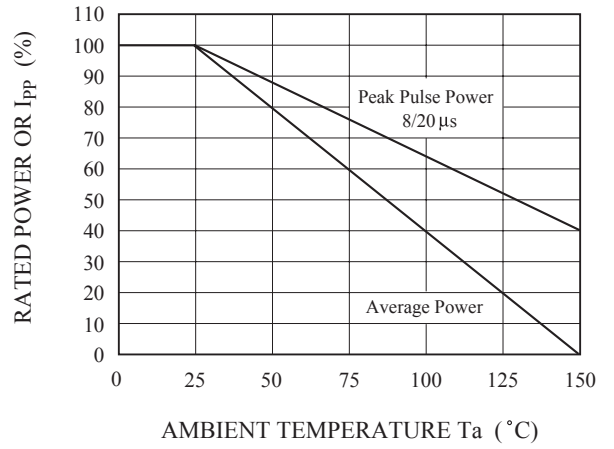
CHARACTERISTIC	SYMBOL	TEST CONDITION		MIN.	TYP.	MAX.	UNIT
Reverse Stand-Off Voltage	V _{RWM}	-		-	-	24	V
Reverse Leakage Current	I _R	V _{RWM} =24V		-	-	100	nA
Reverse Breakdown Voltage	V _{BR}	I _t =1mA		25.4	27.8	30.3	V
Total Capacitance	C _T	V _R =0V, f=1MHz		-	-	18	pF
Clamping Voltage	V _C	I _{PP} =1A, tp=8/20 μs (IEC61000-4-5)		-	-	36.6	V
		I _{PP} =3.8A, tp=8/20 μs (IEC61000-4-5)		-	-	50	
Electrostatic Discharge	V _{ESD}	IEC61000-4-2	Air	± 30	-	-	kV
			Contact	± 30			

PG24DBUSC

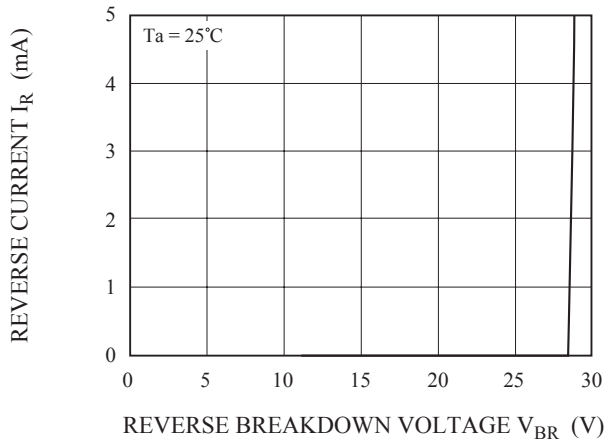
NON-REPETITIVE PEAK PULSE POWER
VS. PULSE TIME



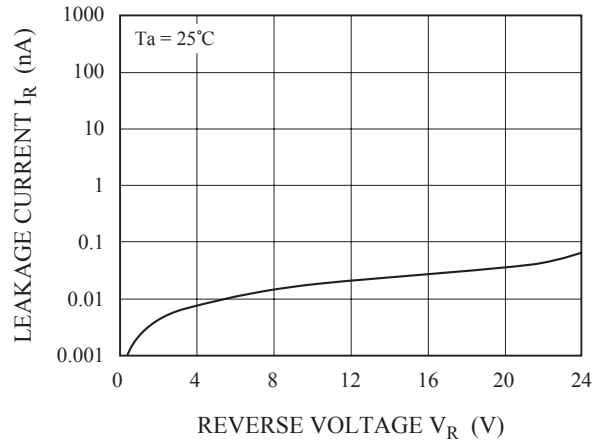
POWER DERATION CURVE



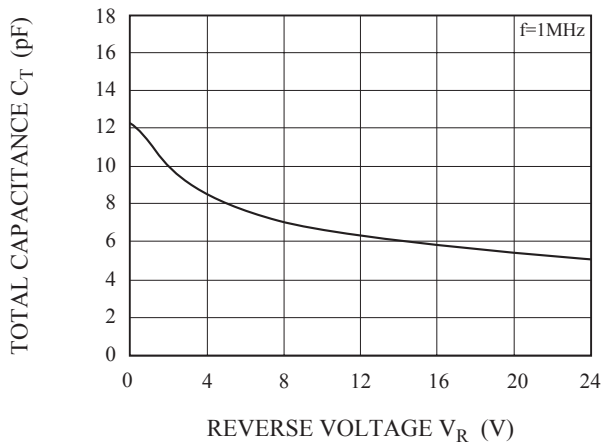
$I_R - V_{BR}$



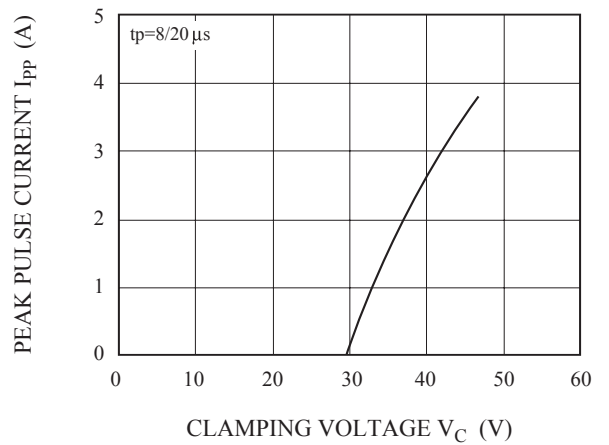
$I_R - V_R$



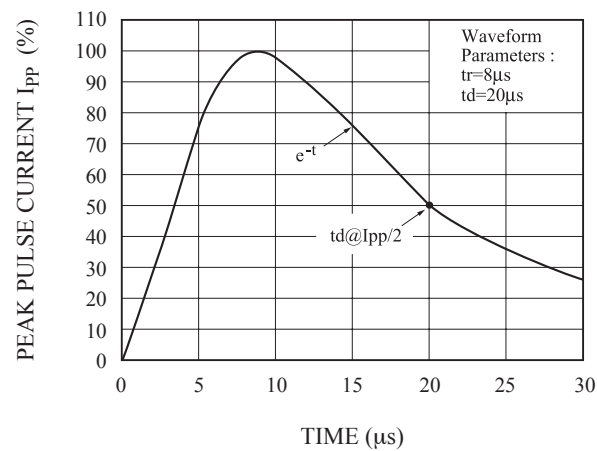
$C_T - V_R$



$I_{PP} - V_C$



PULSE WAVEFORM



APPLICATIONS

- LIN bus protection.
- Automotive application.
- CAN bus protection.

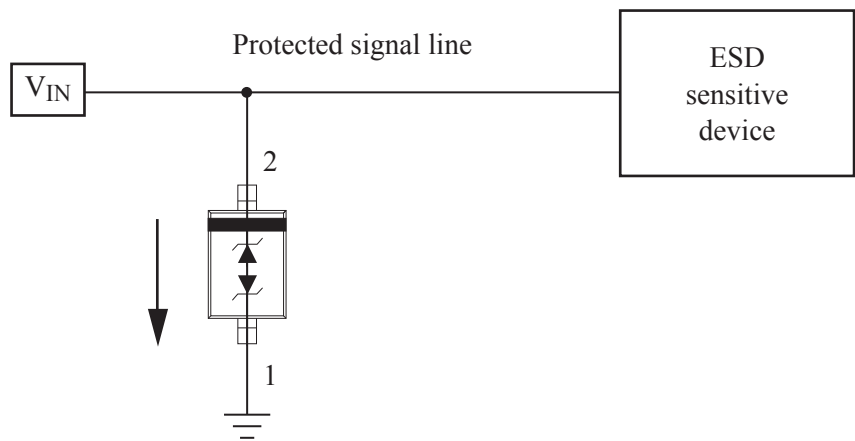


Figure 1. TVS Protection Circuit

Recommended pad dimension & Marking Information

Recommended pad dimension	Marking Code