

Protection in Portable Electronics Application.

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) : 12A(tp=8/20 μs)
- Low capacitance $C_T = 25\text{pF(Max)}$
- Bi-directional, symmetrical working voltage up to : $V_{RWM} = \pm 5\text{V}$
- Small Size $1.0 \times 0.6 \times 0.4\text{mm}$
- Suffix U : Qualified to AEC-Q101.
ex) PS05DBTFC-RTK/HU



TFSC (SMD-type)

PRODUCT DESCRIPTION

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

Package dimensions (TFSC)	Pin configurations (Bi-directional)																		
<table border="1"> <thead> <tr> <th>DIM</th> <th>MILLIMETERS</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>1.00±0.05</td> </tr> <tr> <td>B</td> <td>0.80+0.10/-0.05</td> </tr> <tr> <td>C</td> <td>0.60±0.05</td> </tr> <tr> <td>D</td> <td>0.30±0.05</td> </tr> <tr> <td>E</td> <td>0.40 MAX</td> </tr> <tr> <td>F</td> <td>0.13±0.05</td> </tr> <tr> <td>G</td> <td>0.10 MAX</td> </tr> <tr> <td>H</td> <td>0.25 MAX</td> </tr> </tbody> </table>	DIM	MILLIMETERS	A	1.00±0.05	B	0.80+0.10/-0.05	C	0.60±0.05	D	0.30±0.05	E	0.40 MAX	F	0.13±0.05	G	0.10 MAX	H	0.25 MAX	<p>1. ANODE 2. ANODE</p>
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ORDERING INFORMATION

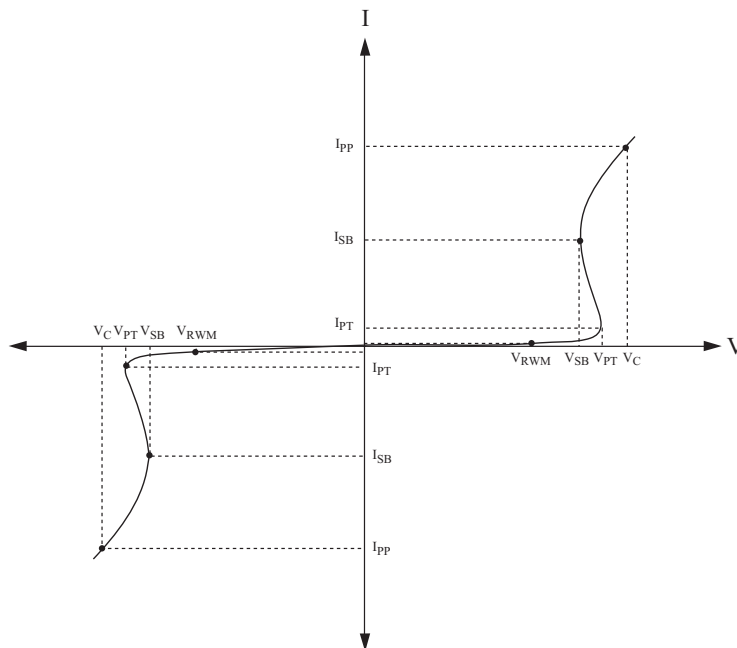
Part Number	Qty per Reel	Reel Size	Marking code
PS05DBTFC-RTK	5,000	7 inch	DB
PS05DBTFC-RTL	10,000		

PS05DBTFC

MAXIMUM RATING (Ta=25)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Peak Pulse Power (tp=8/20 μs)	P _{PK}	200	W
Peak Pulse Current (tp=8/20 μs)	I _{PP}	12	A
Junction Temperature	T _J	150	
Storage Temperature	T _{STG}	-55 150	

DEFINITIONS OF ELECTRICAL CHARACTERISTIC SYMBOL



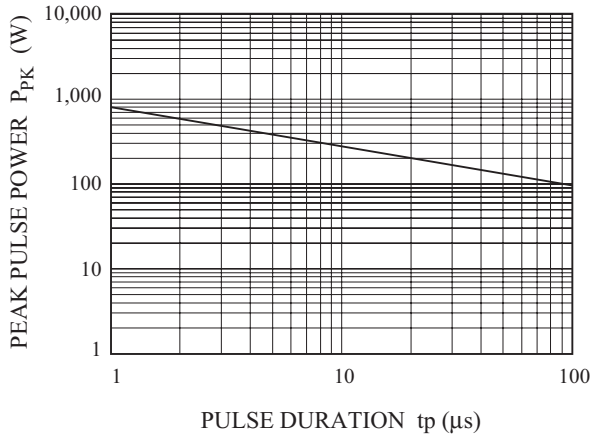
ELECTRICAL CHARACTERISTICS (Ta=25)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT	
Reverse Stand-Off Voltage	V _{RWM}	-	-	-	5	V	
Reverse Breakdown Voltage	V _{PT}	I _{PT} =2 μA	6	-	-	V	
Snap-back Voltage	V _{SB}	I _{SB} =100 μA, I _{SB} =50mA	5.5	-	-	V	
Reverse Leakage Current	I _R	V _{RWM} =5V	-	-	0.1	μA	
Total Capacitance	C _T	V _R =0V, f=1MHz	-	-	25	pF	
Clamping Voltage	V _C	I _{PP} =1A, tp=8/20 μs (IEC61000-4-5)	-	7	10	V	
		I _{PP} =12A, tp=8/20 μs (IEC61000-4-5)	-	11	17		
Electrostatic Discharge	V _{ESD}	IEC61000-4-2	Air	± 30	-	-	kV
			Contact	± 30			

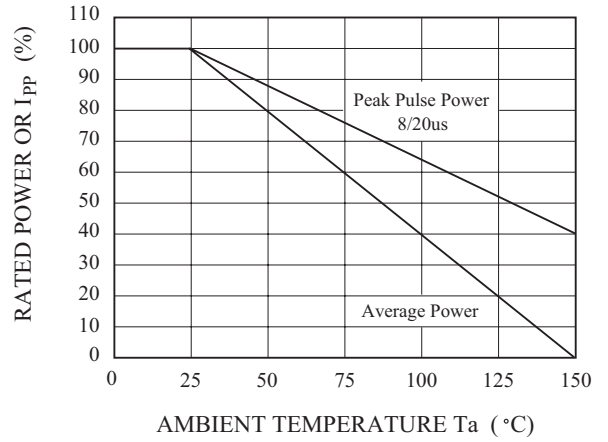
PS05DBTFC

TYPICAL CHARACTERISTICS (Ta=25 °C)

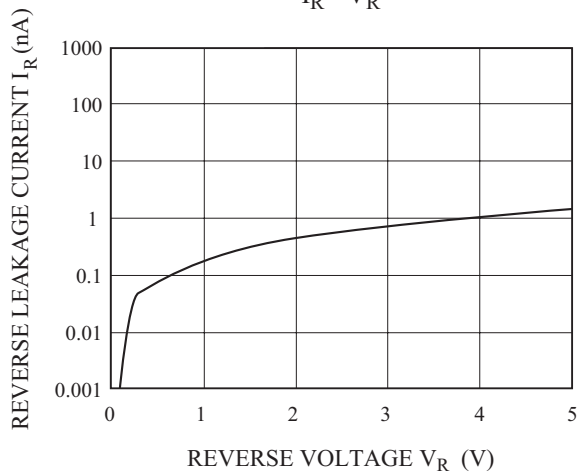
NON-REPETITIVE PEAK PULSE POWER VS. PULSE TIME



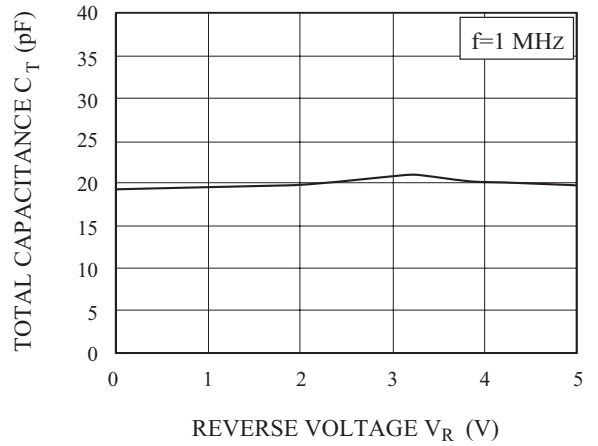
POWER DERATION CURVE



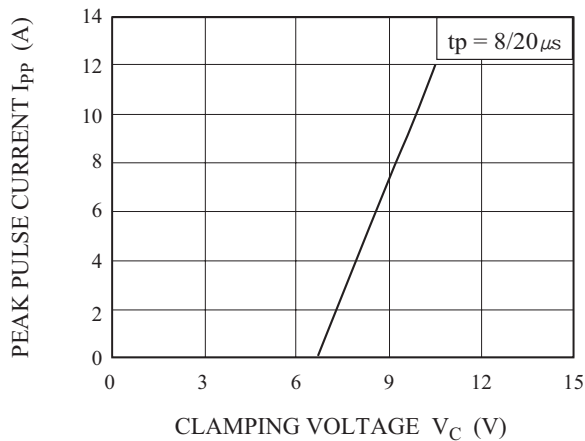
$I_R - V_R$



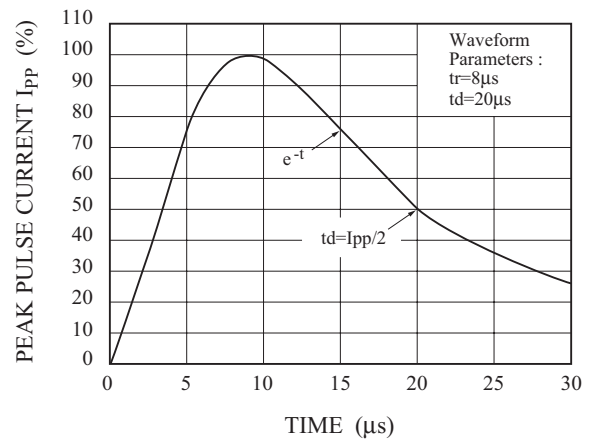
$C_T - V_R$



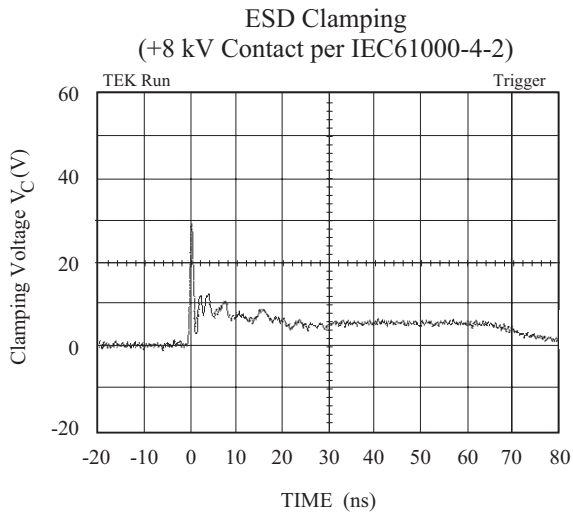
$I_{pp} - V_C$



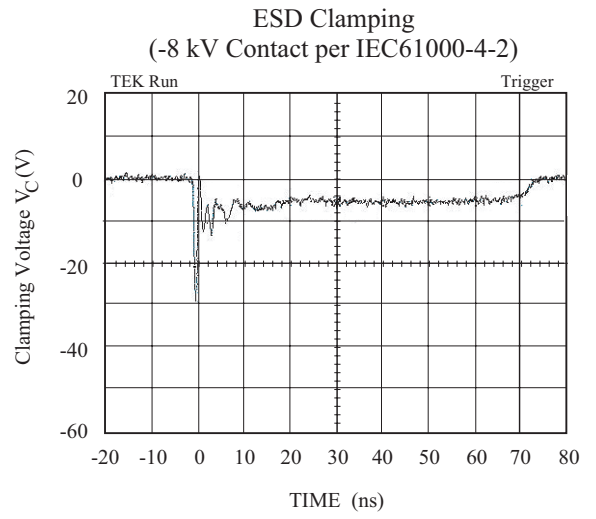
PULSE WAVEFORM



PS05DBTFC



Note : Data is taken with a 10x attenuator

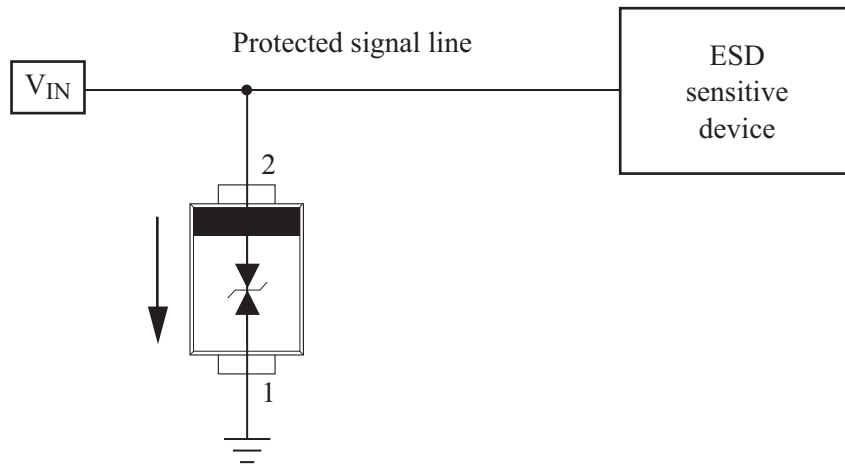


Note : Data is taken with a 10x attenuator

PS05DBTFC

APPLICATIONS

- MDDI Port
- LCD-Display, Camera
- GPS / FM Antennas
- LVDS
- High speed data lines



Recommended pad dimension & Marking Information

Recommended pad dimension	Marking Code