XBP06V4E2HR-G

TOREX

ETR2902-004

Transient Voltage Suppressor (TVS)

■GENERAL DESCRIPTION

Two elements in USP-3 package (Anode Common)
High ESD

■APPLICATIONS

ESD protection

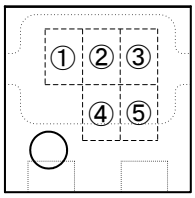
■ABSOLUTE MAXIMUM RATINGS

Ta=25℃

PARAMETER	SYMBOL	RATINGS	UNITS
Peak Pulse Power (*1)	Ppk	70	W
Power Dissipation	Pd	120	mW
		1000(*2)	
Junction Temperature	Tj	150	℃
Storage Temperature Range	Tstg	-55～+150	℃
ESD Durability (*3)(*4) Contact Discharge	Vpp	30	kV

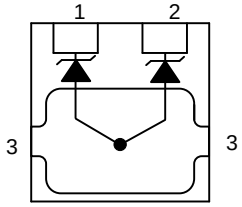
(*1): tp=8/20μs
(*2): This is a reference data taken by using the test board.
(*3): Test Condition IEC61000-4-2 Standard
(*4): Criterion: No damage to device elements

■MARKING RULE



①②③：BP1(Product Number)
④⑤：Lot Number

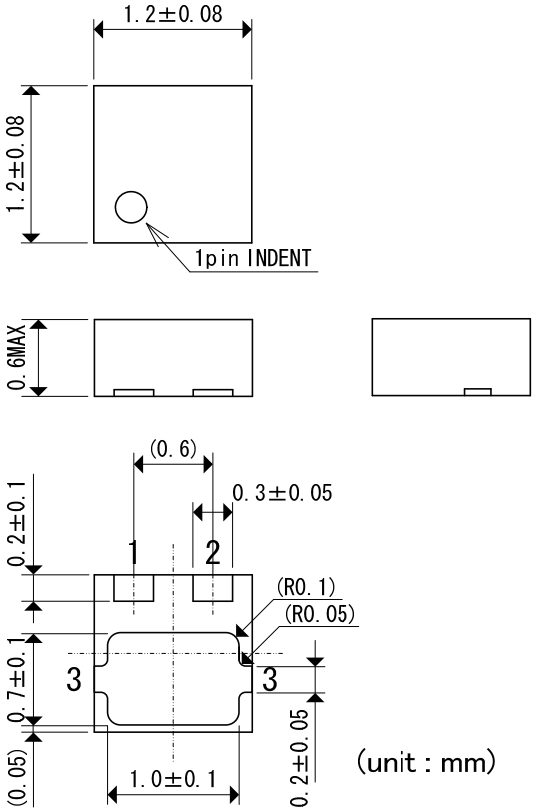
■PIN CONFIGURATION



BOTTOM VIEW

1. Cathode
2. Cathode
3. Anode

■PACKAGING INFORMATION



USP-3 Package

■PRODUCT NAME

PRODUCT NAME	PACKAGE	ORDER UNIT
XBP06V4E2HR-G*	USP-3	3,000/Reel

* The "-G" suffix indicates that the products are Halogen and Antimony free as well as being fully RoHS compliant.

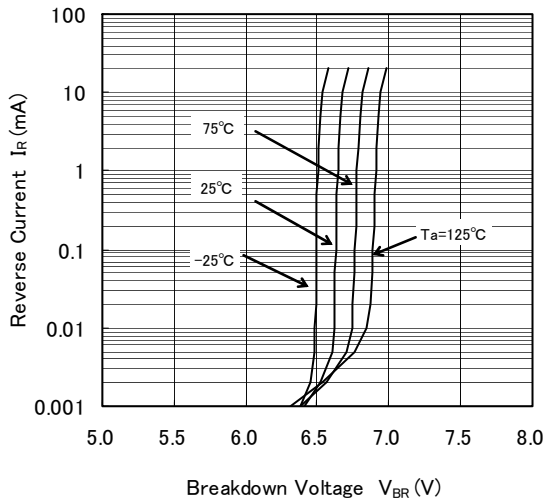
■ ELECTRICAL CHARACTERISTICS

Ta=25℃

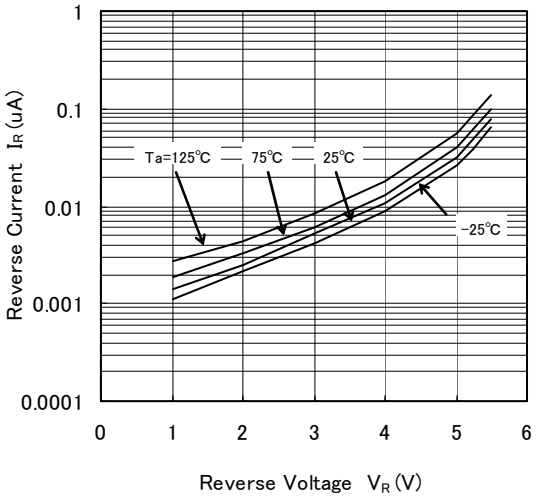
PARAMETER	SYMBOL	TEST CONDITION	LIMITS			UNITS
			MIN.	TYP.	MAX.	
Breakdown Voltage	V_{BR}	I_R =5mA	6.4	6.8	7.2	V
Leakage Current	I_{RM}	V_{RM}=5V	-	-	1.0	μA
Forward Voltage	V_F	I_F=10mA	-	-	1.25	V
Inter-Terminal Capacity	C_t	V_R=0V, f=1MHz	-	40	-	pF

■TYPICAL PERFORMANCE CHARACTERISTICS

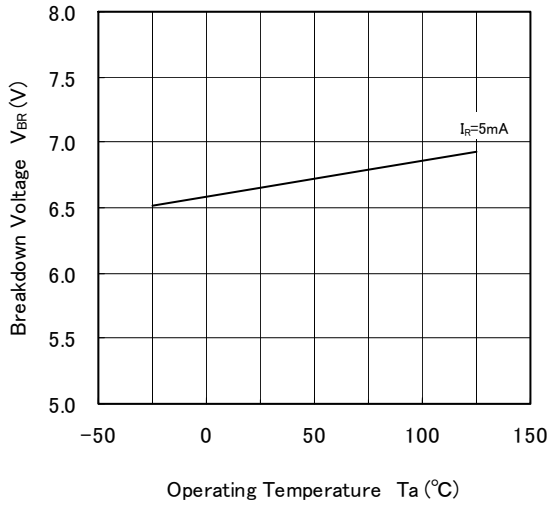
(1) Reverse Current vs. Breakdown Voltage



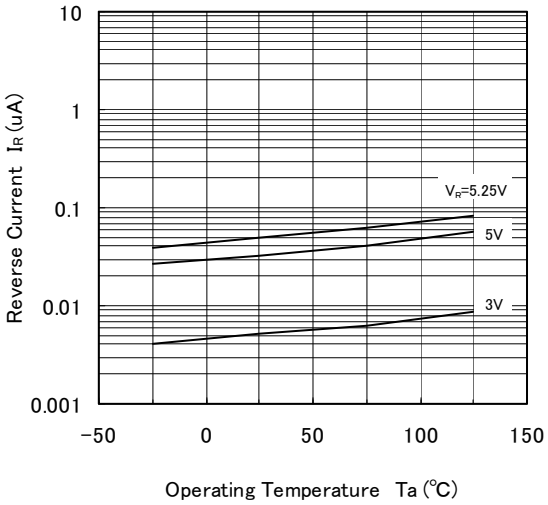
(2) Reverse Current vs. Reverse Voltage



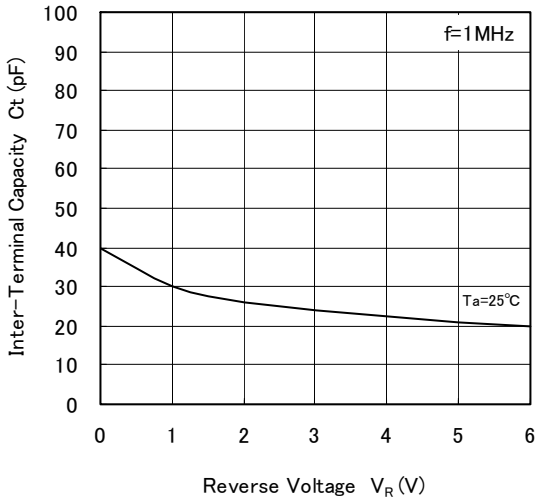
(3) Breakdown Voltage vs. Operating Temperature



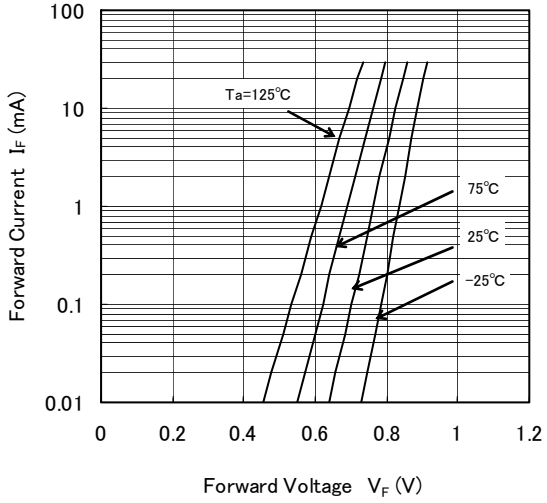
(4) Reverse Current vs. Operating Temperature



(5) Inter-Terminal Capacity vs. Reverse Voltage



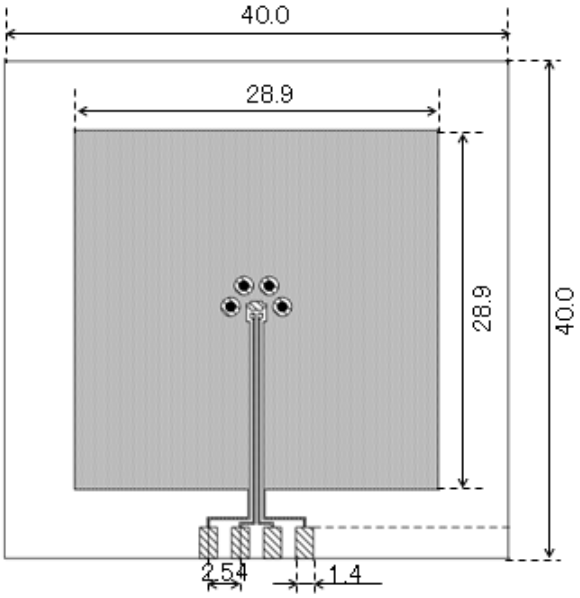
(6) Forward Current vs. Forward Voltage



■PACKAGING INFORMATION

● USP-3 Power Dissipation

Power dissipation data for the USP-3 is shown in this page.
The value of power dissipation varies with the mount board conditions.
Please use this data as one of reference data taken in the described condition.



Evaluation Board (Unit: mm)

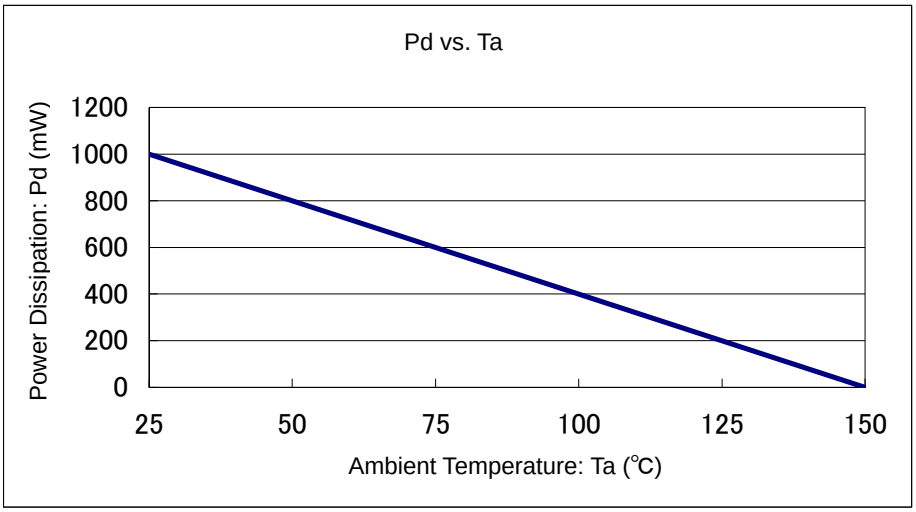
1. Measurement Condition (Reference data)

Condition:	Mount on a board
Ambient:	Natural convection
Soldering:	Lead (Pb) free
Board:	Dimensions 40 x 40 mm (1600 mm^2 in one side)
	Copper (Cu) traces occupy 50% of the board area in top and back faces.
	Package heat-sink is tied to the copper traces.
Material:	Glass Epoxy (FR-4)
Thickness:	1.6 mm
Through-hole:	4 x 0.8 Diameter

2. Power Dissipation vs. Ambient temperature

Board Mount (Tj max = 150℃)

Ambient Temperature (℃)	Power Dissipation Pd (mW)	Thermal Resistance (℃/W)
25	1000	125.00
150	0	



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