XBP06V1E4MR-G

TOREX

ETR2901-004

Transient Voltage Suppressor (TVS)

■GENERAL DESCRIPTION

Four elements in SOT-25 package (Anode Common)

High ESD

■APPLICATIONS

ESD protection

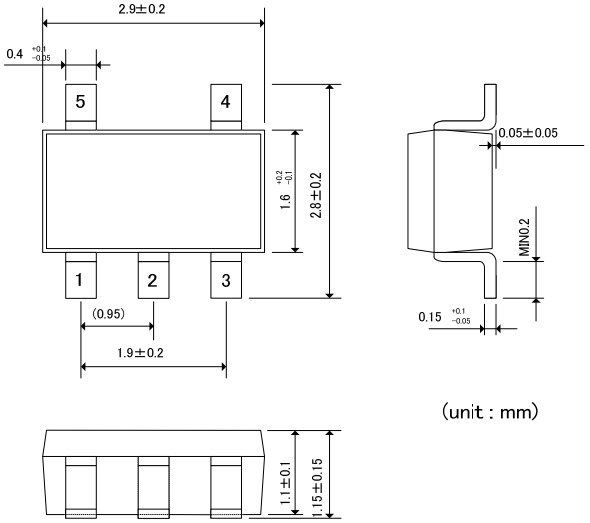
■ABSOLUTE MAXIMUM RATINGS

Ta=25℃

PARAMETER	SYMBOL	RATINGS	UNITS
Peak Pulse Power (*1)	Ppk	200	W
Power Dissipation	Pd	250	mW
		750(*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

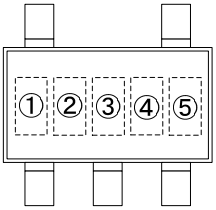
■PACKAGING INFORMATION



(unit : mm)

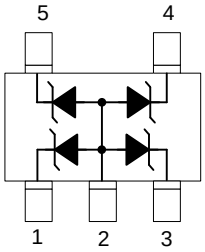
SOT-25 Package

■MARKING RULE



①②③：BP3(Product Number)
④⑤：Lot Number

■PIN CONFIGURATION



TOP VIEW

1. Cathode
2. Anode
3. Cathode
4. Cathode
5. Cathode

PRODUCT NAME	PACKAGE	ORDER UNIT
XBP06V1E4MR-G*	SOT-25	3,000/Reel

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

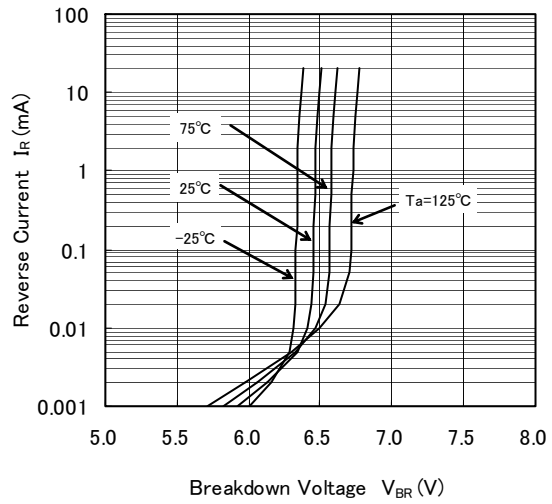
■ ELECTRICAL CHARACTERISTICS

Ta=25℃

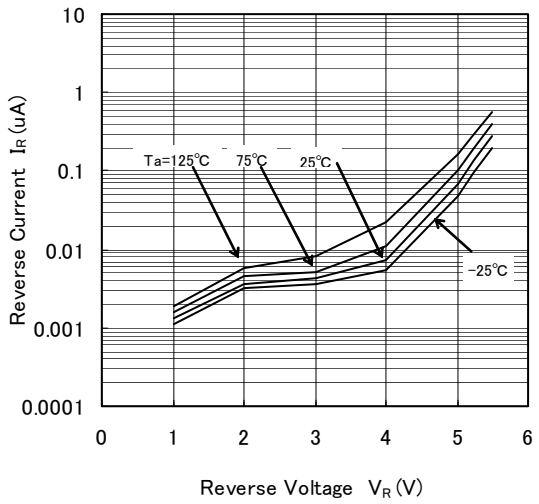
PARAMETER	SYMBOL	TEST CONDITION	LIMITS			UNITS
			MIN.	TYP.	MAX.	
Breakdown Voltage	V_{BR}	I_R =1mA	6.1	6.65	7.2	V
Leakage Current	I_{RM}	V_{RM}=5.25V	-	-	2.5	μA
Forward Voltage	V_F	I_F=200mA	-	-	1.25	V
Inter-Terminal Capacity	C_t	V_R=0V, f=1MHz	-	170	-	pF

■TYPICAL PERFORMANCE CHARACTERISTICS

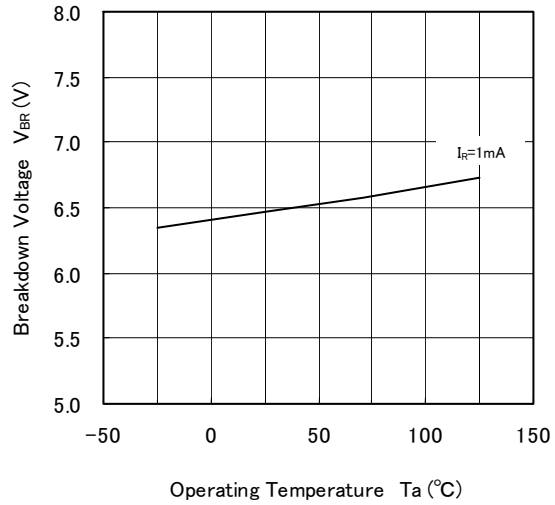
(1) Reverse Current vs. Breakdown Voltage



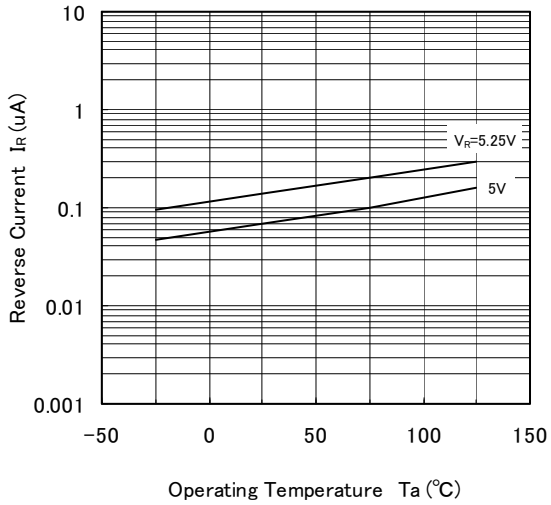
(2) Reverse Current vs. Reverse Voltage



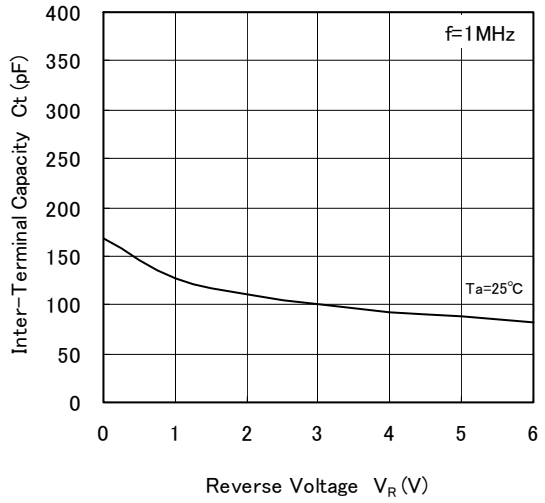
(3) Breakdown Voltage vs. Operating Temperature



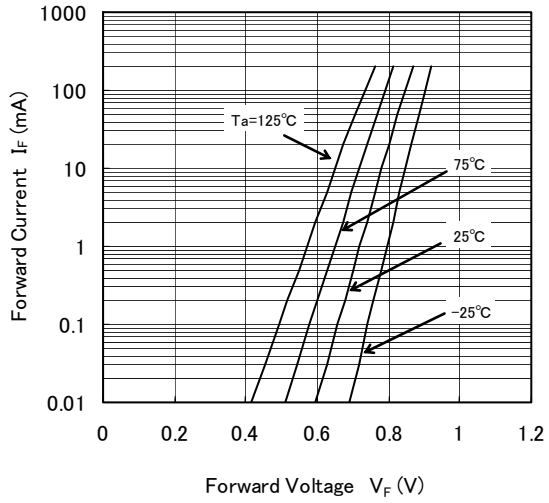
(4) Reverse Current vs. Operating Temperature



(5) Inter-Terminal Capacity vs. Reverse Voltage



(6) Forward Current vs. Forward Voltage



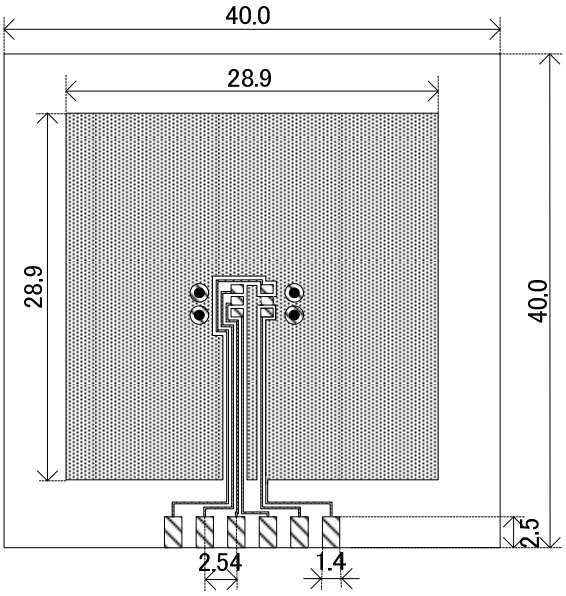
■PACKAGING INFORMATION

● SOT-25 Power Dissipation

Power dissipation data for the SOT-25 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.

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
	(Board of SOT-26 is used.)
Material:	Glass Epoxy (FR-4)
Thickness:	1.6 mm
Through-hole: 4 x 0.8 Diameter	

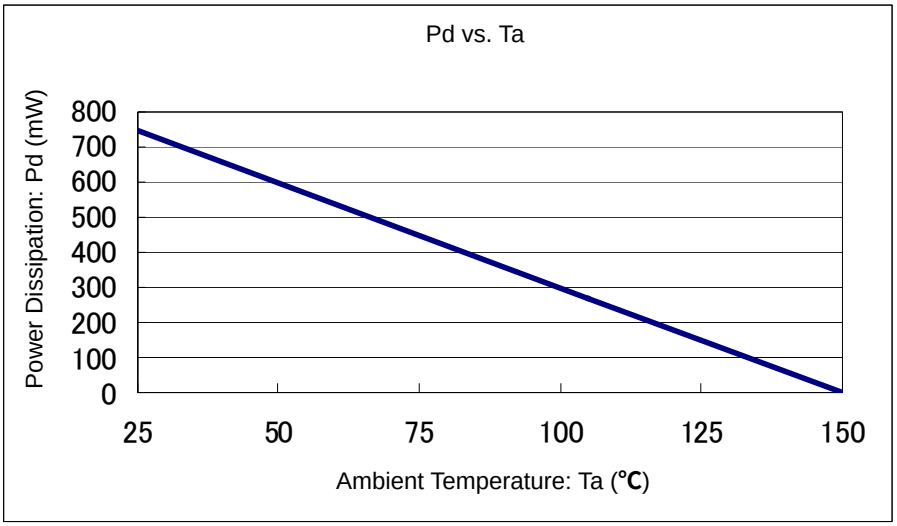


Evaluation Board (Unit: mm)

2. Power Dissipation vs. Operating temperature

Board Mount (Tj max = 150℃)

Ambient Temperature(℃)	Power Dissipation Pd(mW)	Thermal Resistance (℃/W)
25	750	166.67
105	270	



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