

# XBP06V0U25R-G

ETR29023-002a

## Low Capacitance TVS Diode

### FEATURES

Bi-directional	
Terminal Capacitance	: 0.35pF
ESD Protection	: 15kV Contact (IEC61000-4-2)
Environmentally Friendly	: EU RoHS Compliant

### APPLICATIONS

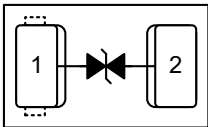
- USB 3.0, HDMI
- DVI
- Portable equipment

### PRODUCT NAME

PRODUCT NAME	PACKAGE	ORDER UNIT
XBP06V0U25R-G *	FBP1006-2A	10,000pcs/Reel

\* The "-G" suffix denotes Halogen and Antimony free as well as being fully RoHS compliant

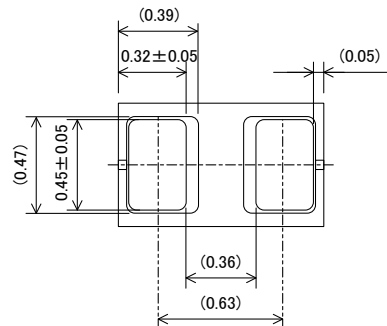
### PIN CONFIGURATION



### ABSOLUTE MAXIMUM RATINGS

Ta=25°C

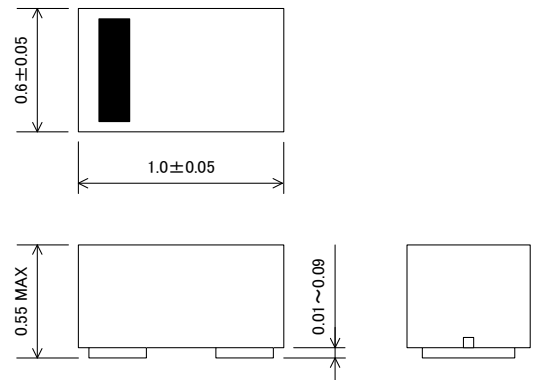
PARAMETER	SYMBOL	RATINGS	UNIT
Peak Pulse Current (8/20 $\mu$ s Waveform)	I <sub>pp</sub>	2	A
Junction Temperature	T <sub>j</sub>	-55 ~ 125	°C
Storage Temperature	T <sub>stg</sub>	-55 ~ 150	°C
IEC61000-4-2 (ESD) Air	V <sub>ESD_A</sub>	± 15	kV
IEC61000-4-2 (ESD) Contact	V <sub>ESD_C</sub>	± 15	kV



### PACKAGING INFORMATION

● FBP1006-2A

Unit : mm



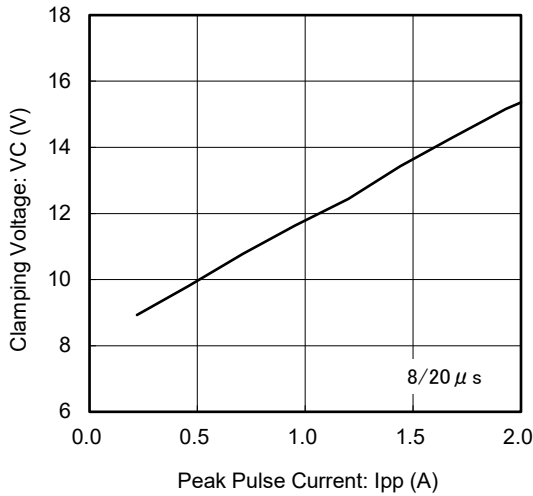
### ELECTRICAL CHARACTERISTICS

Ta=25°C

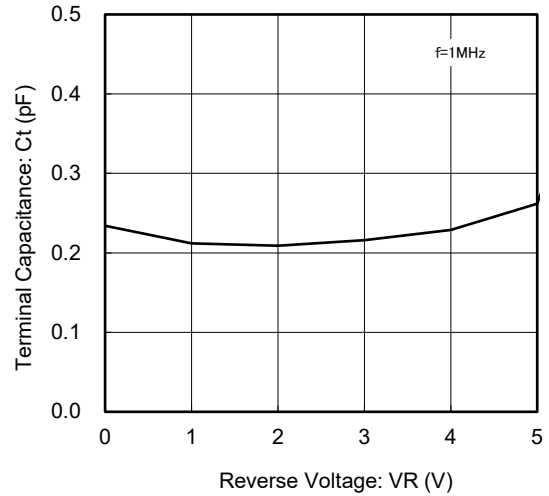
PARAMETER	SYMBOL	TEST CONDITIONS	MIN.	TYP.	MAX.	UNIT
Stand-Off Voltage	V <sub>RWM</sub>		-	-	5	V
Breakdown Voltage	V <sub>BR</sub>	I <sub>R</sub> =1mA	6.0	8.4	11.2	V
Leakage Current	I <sub>R</sub>	V <sub>R</sub> =5V	-	-	1	$\mu$ A
Clamping Voltage (8/20 $\mu$ s)	V <sub>C</sub>	I <sub>PP</sub> =1A	-	12.0	14.0	V
Terminal Capacitance	C <sub>t</sub>	V <sub>R</sub> =0V, f=1MHz	-	0.25	0.35	pF

## TYPICAL PERFORMANCE CHARACTERISTICS

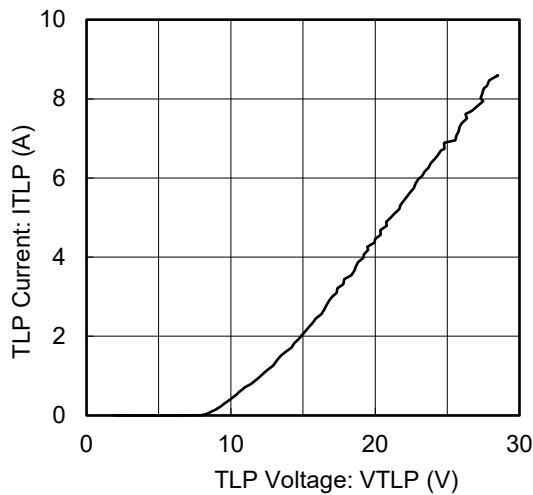
(1) Clamping Voltage vs. Peak Pulse Current



(2) Terminal Capacitance vs. Reverse Voltage



(3) Transmission Line Pulse (TLP) Measurement



## NOTES ON USE

1. Please use this IC within the absolute maximum ratings.

Even within the ratings, in case of high load use continuously such as high temperature, high voltage, high current and thermal stress may cause reliability degradation of the IC.

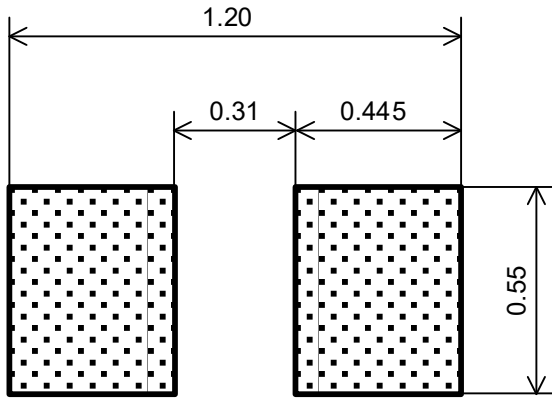
2. Torex places an importance on improving our products and their reliability.

We request that users incorporate fail-safe designs and post-aging protection treatment when using Torex products in their systems.

## ■ REFERENCE PATTERN LAYOUT

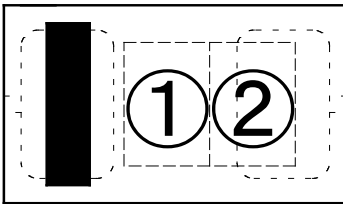
● FBP1006-2A

Unit: mm



## ■ MARKING RULE

FBP1006-2A



① represents product.

MARK	PRODUCT
A	XBP06V0U25R-G

② represents production lot number

0~9, A~Z repeated

(G, I, J, O, Q, W excluded) \*No character inversion used.

1. The product and product specifications contained herein are subject to change without notice to improve performance characteristics. Consult us, or our representatives before use, to confirm that the information in this datasheet is up to date.
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5. Although we make continuous efforts to improve the quality and reliability of our products; nevertheless Semiconductors are likely to fail with a certain probability. So in order to prevent personal injury and/or property damage resulting from such failure, customers are required to incorporate adequate safety measures in their designs, such as system fail safes, redundancy and fire prevention features.
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