

# XBP06V0U2MR-G

## Low Capacitance TVS Diode

ETR29024-001

### FEATURES

Unidirectional (Dual)

Terminal Capacitance : 0.8pF

ESD Protection : 15kV Contact (IEC61000-4-2)

Environmentally Friendly : EU RoHS Compliant, Pb Free

### APPLICATIONS

● USB 2.0, HDMI

● DVI

● Portable equipment

### PRODUCT NAME

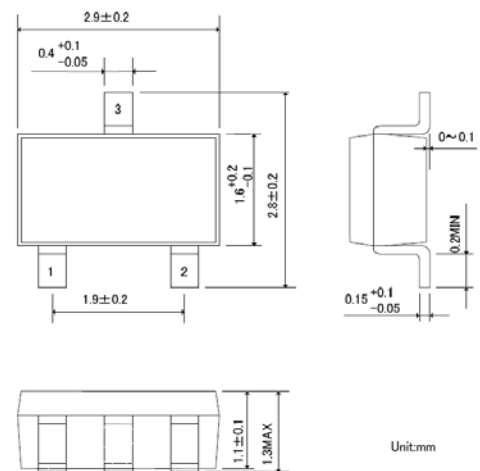
PRODUCT NAME	PACKAGE	ORDER UNIT
XBP06V0U2MR-G *	SOT-23	3,000pcs/Reel

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

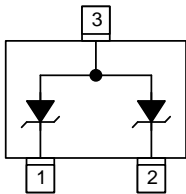
### PACKAGING INFORMATION

● SOT-23

Unit : mm



### PIN CONFIGURATION



### ABSOLUTE MAXIMUM RATINGS

Ta=25°C

PARAMETER	SYMBOL	RATINGS	UNITS
Peak Pulse Current (8/20 $\mu$ s Waveform)	I <sub>pp</sub>	2	A
Junction Temperature	T <sub>j</sub>	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

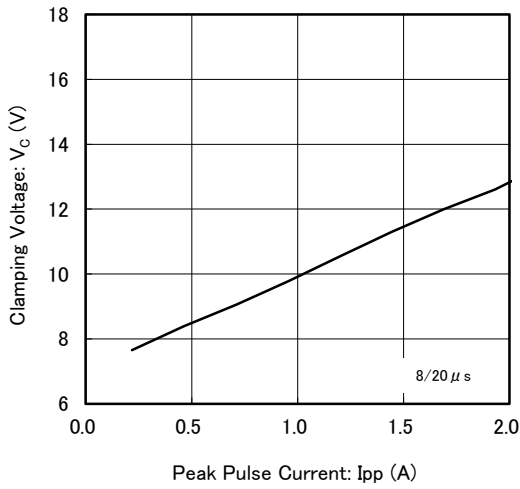
### ELECTRICAL CHARACTERISTICS

Ta=25°C

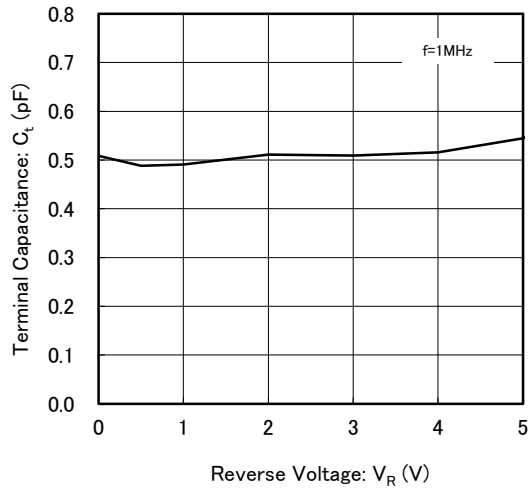
PARAMETER	SYMBOL	TEST CONDITIONS	MIN.	TYP.	MAX.	UNITS
Stand-Off Voltage	V <sub>RWM</sub>		-	-	5	V
Breakdown Voltage	V <sub>BR</sub>	I <sub>R</sub> =1mA	6.0	7.5	9.0	V
Leakage Current	I <sub>R</sub>	V <sub>R</sub> =5V	-	-	1	$\mu$ A
Clamping Voltage (8/20 $\mu$ s)	V <sub>C</sub>	I <sub>PP</sub> =1A	-	10	12	V
Terminal Capacitance	C <sub>t</sub>	V <sub>R</sub> =0V, f=1MHz	-	0.5	0.8	pF

## TYPICAL PERFORMANCE CHARACTERISTICS

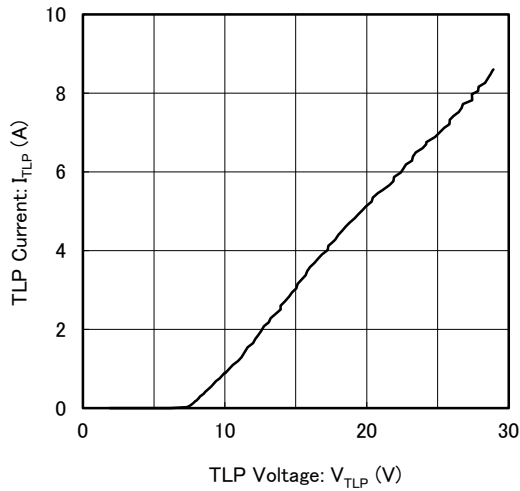
(1) Clamping Voltage vs. Peak Pulse Current



(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.

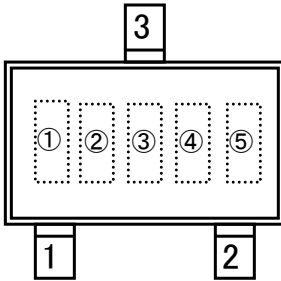
## ■ PACKAGING INFORMATION

For the latest package information go to, [www.torexsemi.com/technical-support/packages](http://www.torexsemi.com/technical-support/packages)

PACKAGE	OUTLIN / LAND PATTERN	THERMAL CHARACTERISTICS	
		SOT-23	<a href="#">SOT-23 PKG</a>

## ■ MARKING RULE

SOT-23



①,②,③ represents products series

MARK			PRODUCT SERIES
6	U	2	XBP06V0U2MR-G

④,⑤ represents production lot number.

01~09, 0A~0Z, 11~9Z, A1~A9, AA~AZ, B1~ZZ 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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