XBP06V0U2MR-G

ETR29024-001

Low Capacitance TVS Diode

■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

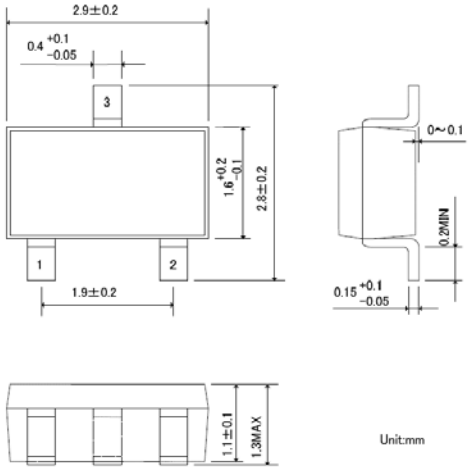
■PRODUCT NAME

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

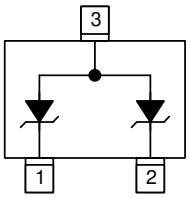
* The “-G” suffix denotes Halogen and Antimony free as well as being fully RoHS compliant

■ PACKAGING INFORMATION

●SOT-23 Unit : mm



■PIN CONFIGURATION



■ABSOLUTE MAXIMUM RATINGS

Ta=25℃

PARAMETER	SYMBOL	RATINGS	UNITS
Peak Pulse Current (8/20μs Waveform)	Ipp	2	A
Junction Temperature	Tj	125	℃
Storage Temperature	Tstg	-55～ +150	℃
IEC61000-4-2 (ESD) Air	V_{ESD_A}	±15	kV
IEC61000-4-2 (ESD) Contact	V_{ESD_C}	±15	kV

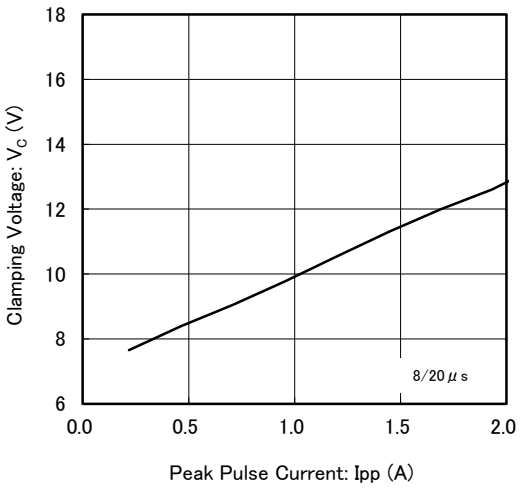
■ELECTRICAL CHARACTERISTICS

Ta=25℃

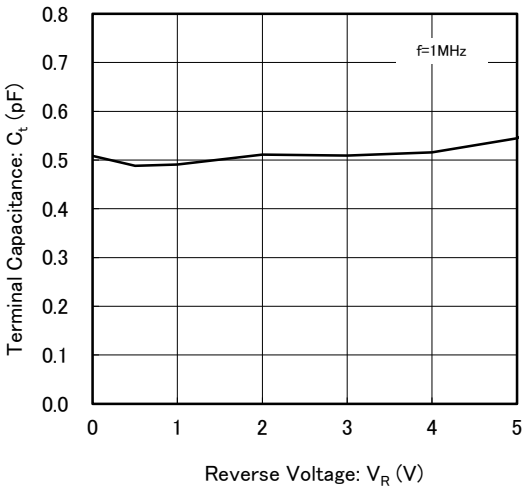
PARAMETER	SYMBOL	TEST CONDITIONS	MIN.	TYP.	MAX.	UNITS
Stand-Off Voltage	V_{RWM}		-	-	5	V
Breakdown Voltage	V_{BR}	I_R=1mA	6.0	7.5	9.0	V
Leakage Current	I_R	V_R=5V	-	-	1	μA
Clamping Voltage (8/20μs)	V_C	I_{PP}=1A	-	10	12	V
Terminal Capacitance	C_t	V_R=0V, f=1MHz	-	0.5	0.8	pF

■TYPICAL PERFORMANCE CHARACTERISTICS

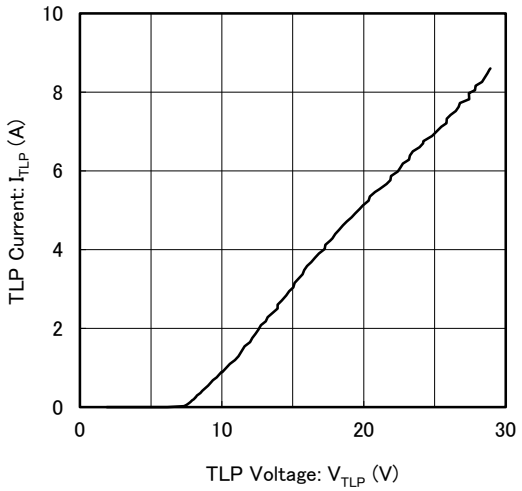
(1) Clamping Voltage vs. Peak Pulse Current



(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.

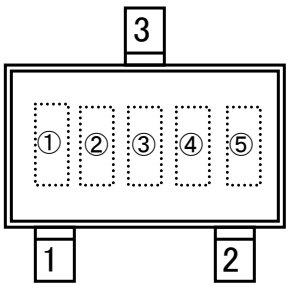
■PACKAGING INFORMATION

For the latest package information go to, www.torexsemi.com/technical-support/packages

PACKAGE	OUTLIN / LAND PATTERN	THERMAL CHARACTERISTICS	
SOT-23	SOT-23 PKG	Standard Board	SOT-23 Power Dissipation

■ 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.

2. The information in this datasheet is intended to illustrate the operation and characteristics of our products. We neither make warranties or representations with respect to the accuracy or completeness of the information contained in this datasheet nor grant any license to any intellectual property rights of ours or any third party concerning with the information in this datasheet.

3. Applicable export control laws and regulations should be complied and the procedures required by such laws and regulations should also be followed, when the product or any information contained in this datasheet is exported.

4. The product is neither intended nor warranted for use in equipment of systems which require extremely high levels of quality and/or reliability and/or a malfunction or failure which may cause loss of human life, bodily injury, serious property damage including but not limited to devices or equipment used in 1) nuclear facilities, 2) aerospace industry, 3) medical facilities, 4) automobile industry and other transportation industry and 5) safety devices and safety equipment to control combustions and explosions. Do not use the product for the above use unless agreed by us in writing in advance.

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.

6. Our products are not designed to be Radiation-resistant.

7. Please use the product listed in this datasheet within the specified ranges.

8. We assume no responsibility for damage or loss due to abnormal use.

9.

TOREX SEMICONDUCTOR LTD.