TOIREX

XBP141P-G

Low Capacitance TVS Diode Array

ETR29025-001

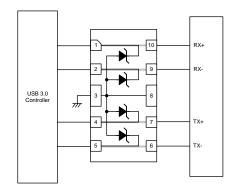
■FEATURES

Terminal Capacitance : 0.40pF (Line-to-GND)

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

Environmentally Friendly : EU RoHS Compliant, Pb Free

■APPLICATION CIRCUIT



■APPLICATIONS

- ●USB 3.0
- DVI
- Set Top Box

■ PIN CONFIGURATION

●DFN2510-10A

	Transparent top view		
I/O 1	1		10 NC
I/O 2	2		9 NC
GND	3		8 GND
I/O 3	4		7 NC
I/O 4	5		6 NC

■PRODUCT CLASSIFICATION

PRODUCT NAME	PACKAGE	ORDER UNIT
XBP141P-G *	DFN2510-10A	5,000 pcs/ Reel

^{*} The "-G" suffix denotes Halogen and Antimony free as well as being fully EU RoHS compliant

■ABSOLUTE MAXIMUM RATINGS

Ta=25°C

PARAMETER	SYMBOL	RATINGS	UNIT
Junction Temperature	Tj	125	°C
Storage Temperature	Tstg	-55 ~ +150	°C
IEC61000-4-2 (ESD) Air	V_{ESD_A}	±15	kV
IEC61000-4-2 (ESD) Contact	V_{ESD_C}	±15	kV

■ELECTRICAL CHARACTERISTICS

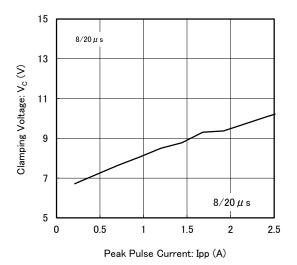
Ta=25°C

PARAMETER	SYMBOL TEST CONDITIONS	TECT COMPLETIONS	LIMITS			LINIT
		MIN.	TYP.	MAX.	UNIT	
Stand-Off Voltage	V_{RWM}		=	=	5	V
Breakdown Voltage	V_{BR}	I _R =1mA, I/O pin to Pin3	5.5	1	1	V
Leakage Current	I _R	V _R =5V, I/O pin to Pin3	-	-	0.1	μΑ
Clamping Voltage (8/20 µs)	V _C	I _{PP} =1A, I/O pin to Pin3	-	-	10	V
Tanahad Quantitana	Ct	V _R =2.5V, f=1MHz Between I/O pin to Pin3	-	0.30	0.40	pF
Terminal Capacitance	Ct	V _R =2.5V, f=1MHz Between I/O pins	-	0.20	-	pF

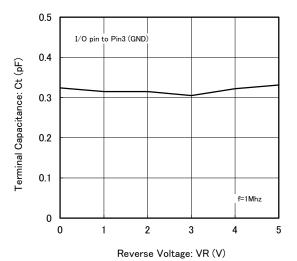
XBP141P-G

■TYPICAL PERFORMANCE CHARACTERISTICS

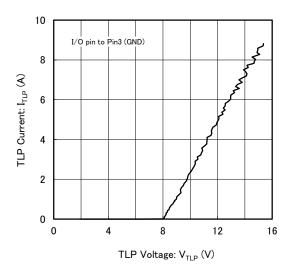
(1) Clamping Voltage vs. Peak Pulse Current



(2) Terminal Capacitance vs. Voltage



(3) Transmission Line Pulse (TLP) Measurement



■NOTES ON USE

- 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 maycause 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	OUTLINE / LAND PATTERN
DFN2510-10A	<u>DFN2510-10A PKG</u>

■MARKING



①②: Control Number

- 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.
- 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.
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>>Torex Semiconductor(特瑞仕)