Uni-directional ESD Diode

Peak Pulse Power - 135 Watts

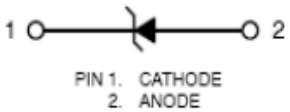
Features

- Meets IEC61000-4-2 (ESD) ±15kV (air), ± 8kV (contact)
- Meets IEC61000-4-4 (EFT) rating. 40A (5/50μs)
- Protects single I/O lines
- Working Voltage: 5V
- Low leakage current
- Low operating and clamping voltages
- Pb free, RoHS compliant, and Halogen free

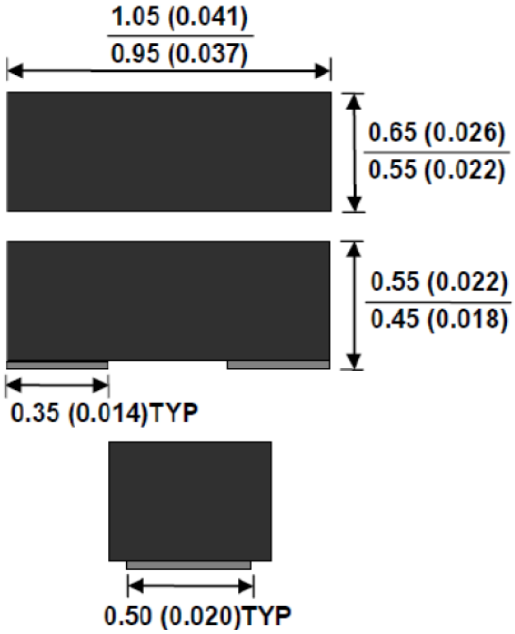
Mechanical Data

- Case: DFN1006(0402) mold package
- Terminal: Sn/Au plated, solderable per MIL-STD-750, method 2026
- Mounting position: Any
- Marking Code: Cathode band & 5U
- MSL：Level 1

Note: Products with logo HY® or HY® are made by HY Electronic (Cayman) Limited.



DFN1006(0402)



Package Outline Dimensions in Millimeters (Inches)

Maximum Ratings and Electrical Characteristics

Rating at 25℃ ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

Characteristics	Symbol	Min	Typ	Max	Unit
	Marking		5U		
Peak Pulse Power, tp=8/20 μs (According to IEC61000-4-5)	PpK		135		W
Maximum Peak Pulse Current, tp=8/20us (According to IEC61000-4-5)	Ipp		10		A
ESD per IEC 61000-4-2 (Air)	Vpp		±15		KV
ESD per IEC 61000-4-2 (Contact)			±8		KV
Operating Junction Temperature	Tj	-55		-125	℃
Storage Temperature	Tstg	-55		-150	℃
Reverse Stand-Off Voltage	V_{RWM}			5	V
Reverse Breakdown Voltage , It = 1mA	V_{BR}			7.6	V
Reverse Leakage Current , VRWM = 5V	IR			1	uA
Clamping Voltage , Ipp = 10A，tp = 8/20 μs	Vc			13.5	V
Junction Capacitance , VR=0V，f=1MHz	Cj			80	pF

Notes: 1.Measured at 1.0 MHz and applied reverse voltage of 4.0V DC.

2.The typical data above is for reference only.

HEDX25V0U-7-99-00-CC0015

Rev. 1, 5-Mar-2020

Fig 1 : Peak Plus Power VS Exponential Plus Duration

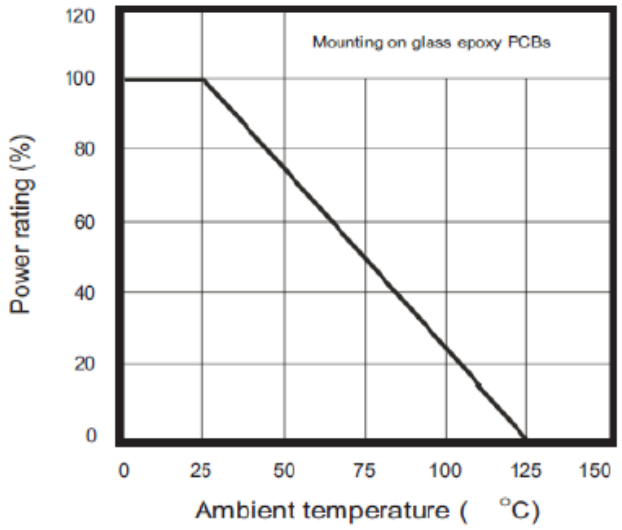


Fig 2 : Junction Capacitance Vs Reverse Voltage Applied

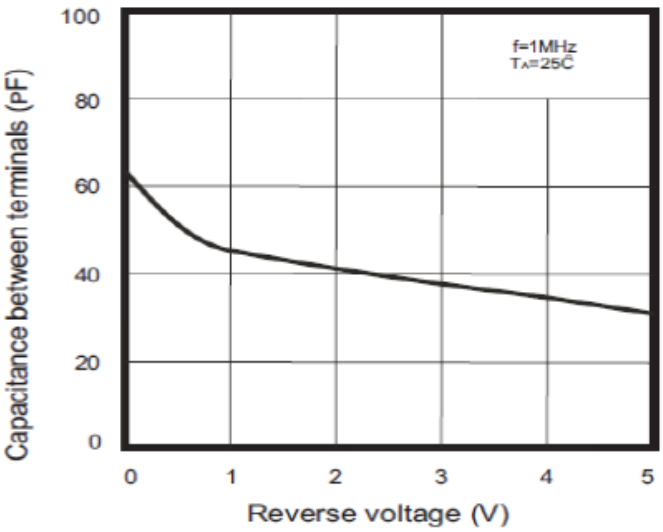


Fig 3 : Clamping Voltage VS Peak Pulse Current

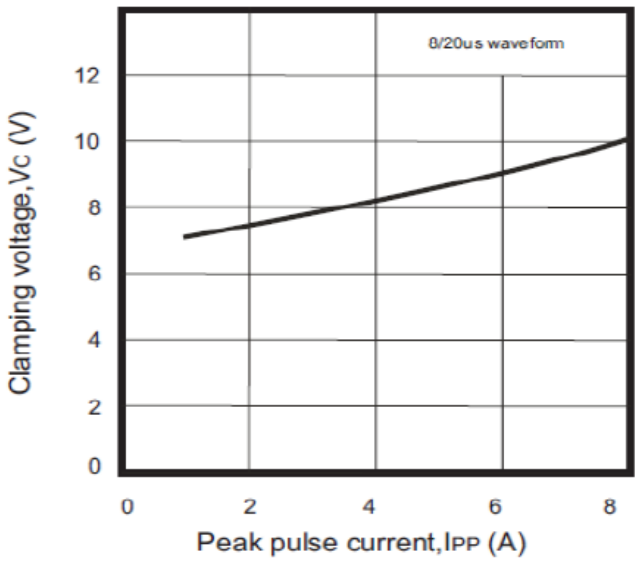
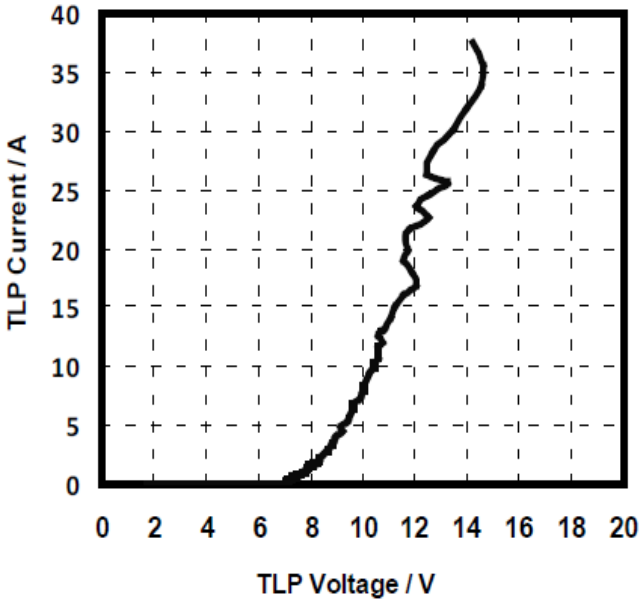


Fig 4 : TLP Measurement



The curve above is for reference only.

Disclaimer

ALL specifications and data are subject to be changed without notice to improve reliability function or design or other reasons.

HY makes no warranty, representation or guarantee regarding the suitability of the products for any particular purpose or the continuing production of any product. To the maximum extent permitted by applicable law, HY disclaims (i) any and all liability arising out of the application or use of any product, (ii) any and all liability, including without limitation special,consequential or incidental damages, and (iii) any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.

Statements regarding the suitability of products for certain types of applications are based on HY's knowledge of typical requirements that are often placed on HY products in generic applications. Such statements are not binding statements about the suitability of products for a particular application. It is the customer's responsibility to validate that a particular product with the properties described in the product specification is suitable for use in a particular application.Parameters provided in datasheets and specifications may vary in different applications and performance may vary over time. All operating parameters, including typical parameters, must be validated for each customer application by the customer's technical experts. Product specifications do not expand or otherwise modify HY's terms and conditions of purchase, including but not limited to the warranty expressed therein.

Except as expressly indicated in writing, HY products are not designed for use in medical, life-saving, or life-sustaining applications or for any other applications in which the failure of the HY product could result in personal injury or death. Customers using or selling HY products not expressly indicated for use in such applications do so at their own risk.Please contact authorized HY personnel to obtain written terms and conditions regarding products designed for such applications.

No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document or by any conduct of HY. Product names and markings noted herein may be trademarks of their respective owners.

Rev. 1, 5-Mar-2020