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April 1st, 2010
Renesas Electronics Corporation

Issued by: Renesas Electronics Corporation (<http://www.renesas.com>)

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HZU-G Series

Silicon Planar Zener Diode for Surge Absorption

REJ03G1215-0300
Rev.3.00
Jun 08, 2006

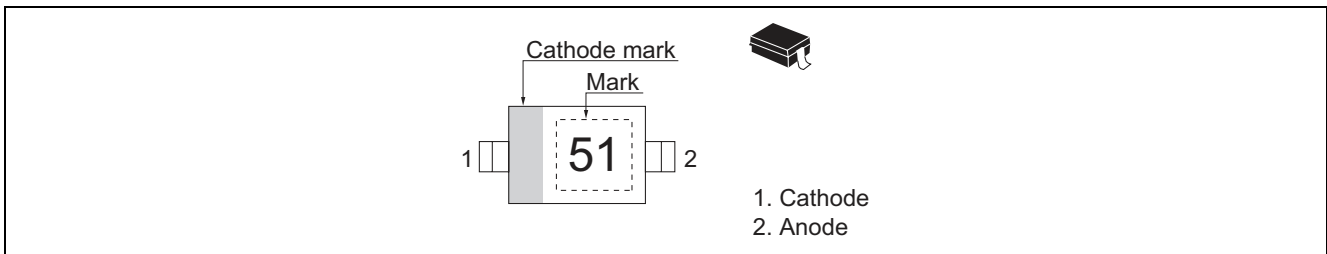
Features

- Zener diode for surge absorption suitable for IEC 1000-4-2.
- Ultra small Resin Package (URP) is suitable for surface mount design.

Ordering Information

Type No.	Laser Mark	Package Name	Package Code
HZU-G Series	Let to Mark Code	URP	PTSP0002ZA-A

Pin Arrangement



Absolute Maximum Ratings

(Ta = 25°C)

Item	Symbol	Value	Unit
Power dissipation	Pd *	200	mW
Junction temperature	Tj	150	°C
Storage temperature	Tstg	-55 to +150	°C

Note: See Fig2.

Electrical Characteristics

(Ta = 25°C)

Type No.	Zener Voltage		Reverse Current		Dynamic Resistance		ESD-Capability *2	
	Vz (V) *1		I _R (∞A)	Test Condition	r _d (Ω)	Test Condition	— (kV) *2	
	Min	Max	I _Z (mA)	Max	V _R (V)	Max	I _Z (mA)	Min
HZU5.1G	4.84	5.37	5	5	1.5	130	5	30
HZU5.6G	5.31	5.92	5	5	2.5	80	5	30
HZU6.2G	5.86	6.53	5	2	3.0	50	5	30
HZU6.8G	6.47	7.14	5	2	3.5	30	5	30
HZU7.5G	7.06	7.84	5	2	4.0	30	5	30
HZU8.2G	7.76	8.64	5	2	5.0	30	5	30
HZU9.1G	8.56	9.55	5	2	6.0	30	5	30
HZU10G	9.45	10.55	5	2	7.0	30	5	30
HZU12G	11.42	12.60	5	2	9.0	35	5	30
HZU13G	12.47	13.96	5	2	10.0	35	5	30

Notes: 1. Tested with pulse (Pw = 40 ms).

2. C = 150 pF, R = 330 Ω, Both forward and reverse direction 10 pulse
Failure criterion ; According to IR spec

Mark Code

Type No.	Mark No.
HZU5.1G	51
HZU5.6G	56
HZU6.2G	62
HZU6.8G	68
HZU7.5G	75
HZU8.2G	82
HZU9.1G	91
HZU10G	10
HZU12G	12
HZU13G	13

Main Characteristic

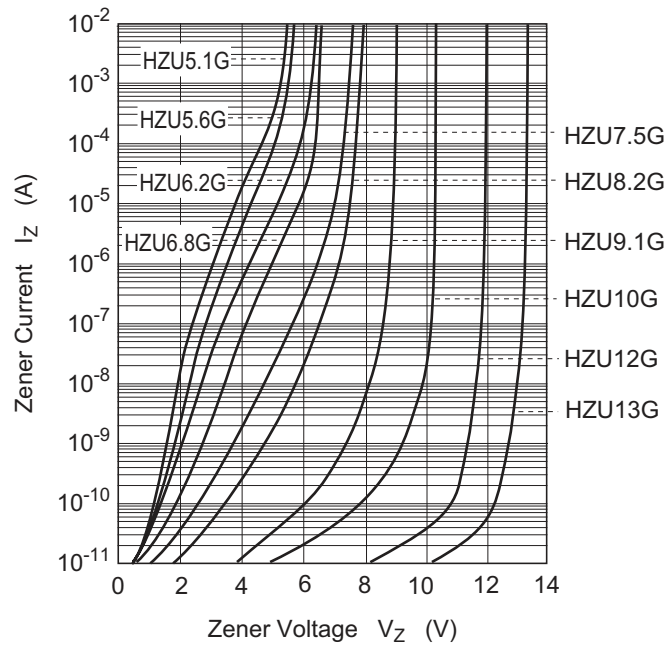


Fig.1 Zener current vs. Zener voltage

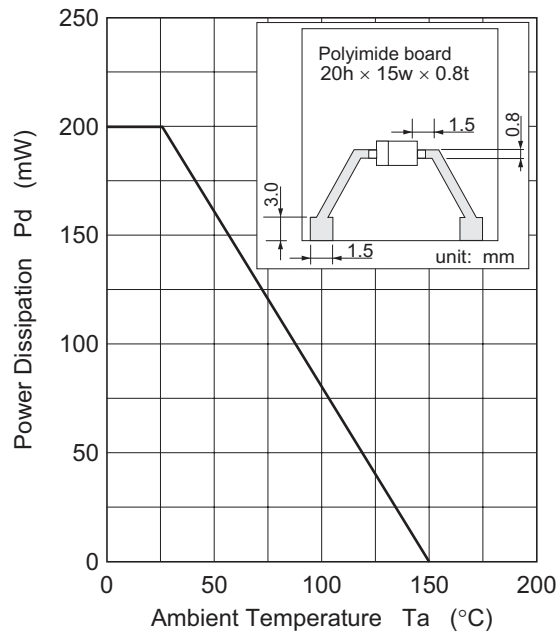
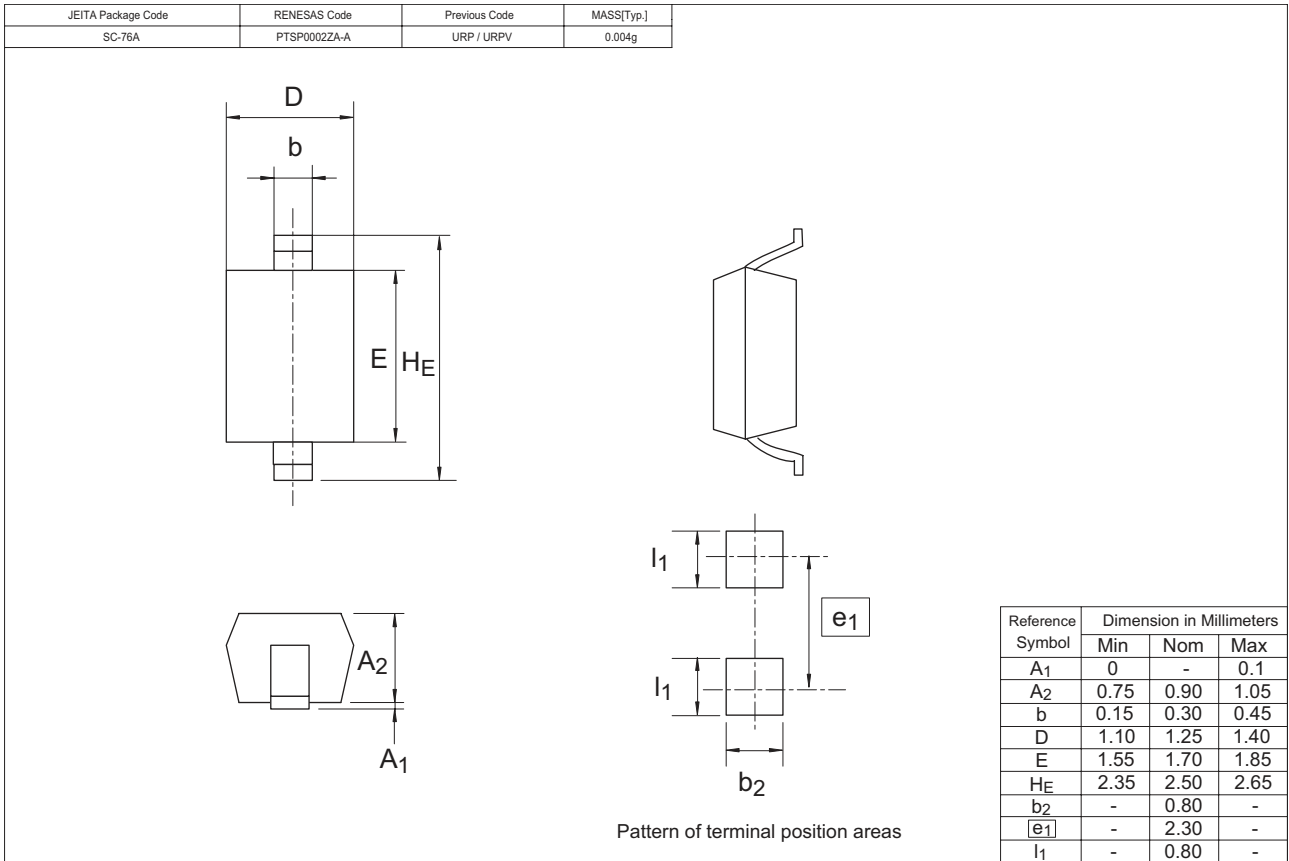


Fig.2 Power Dissipation vs. Ambient Temperature

Package Dimensions



Keep safety first in your circuit designs!

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