

PZS52B3V9M1Q ~ PZS52B47M1Q Series

Silicon Zener Diode

Voltage 3.9~47 V **Power** 250 mW

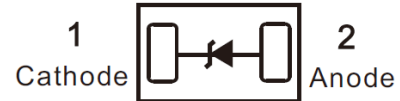
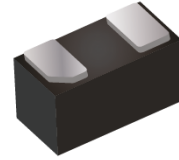
Features

- Planar Die construction
- Ideally Suited for Automated Assembly Processes
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

Mechanical Data

- Case : DFN1006-2L Package
- Terminals : Solderable per MIL-STD-750, Method 2026
- Approx. Weight : 0.0006 grams

DFN1006-2L



Maximum Ratings and Thermal Characteristics (T_A = 25 °C unless otherwise noted)

PARAMETER	SYMBOL	LIMIT	UNIT
Peak Pulse Power Dissipation at T _A = 25 °C ^(Note 1)	P _D	250	mW
Typical Thermal Resistance Junction to Ambient ^(Note 2)	R _{θJA}	500	°C/W
Forward Voltage at I _F =10mA	V _F	0.9	V
Operating Junction Temperature Range	T _J	-55~150	°C
Storage Temperature Range	T _{STG}	-55~150	°C

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Electrical Characteristics (T_A = 25 °C unless otherwise noted)

Part Number	Nominal Zener Voltage				Nominal Zener Impedance				Max. Reverse Leakage Current		Temperature coefficient SZ (mV/°C); I _Z = 5 mA	Marking Code
	V _Z @I _{ZT}				Z _{zT} @I _{ZT}		Z _{zK} @I _{zK}		I _R @V _R			
	Nom.V	Min.V	Max.V	mA	Ω	mA	Ω	mA	uA	V	mV/°C	
PZS52B3V9M1Q	3.9	3.82	3.98	5	90	5	500	1.0	3.0	1	-2.14	UA
PZS52B4V3M1Q	4.3	4.21	4.39	5	90	5	600	1.0	3.0	1	-1.20	UB
PZS52B4V7M1Q	4.7	4.61	4.79	5	80	5	500	1.0	3.0	2	-0.30	UC
PZS52B5V1M1Q	5.1	5.00	5.20	5	60	5	480	1.0	2.0	2	0.80	UD
PZS52B5V6M1Q	5.6	5.49	5.71	5	40	5	400	1.0	1.0	2	1.90	UE
PZS52B6V2M1Q	6.2	6.08	6.32	5	10	5	150	1.0	3.0	4	2.50	UF
PZS52B6V8M1Q	6.8	6.66	6.94	5	15	5	80	1.0	2.0	4	3.10	UG
PZS52B7V5M1Q	7.5	7.35	7.65	5	15	5	80	1.0	1.0	5	3.80	UH
PZS52B8V2M1Q	8.2	8.04	8.36	5	15	5	80	1.0	0.7	5	4.50	UJ
PZS52B9V1M1Q	9.1	8.92	9.28	5	15	5	100	1.0	0.5	6	5.40	UL
PZS52B10M1Q	10	9.80	10.20	5	20	5	150	1.0	0.2	7	6.30	UM
PZS52B11M1Q	11	10.78	11.22	5	20	5	150	1.0	0.1	8	7.30	UN
PZS52B12M1Q	12	11.76	12.24	5	25	5	150	1.0	0.1	8	8.30	UP
PZS52B13M1Q	13	12.74	13.26	5	30	5	170	1.0	0.1	8	9.30	UQ
PZS52B15M1Q	15	14.70	15.30	5	30	5	200	1.0	0.1	10.5	11.30	US
PZS52B16M1Q	16	15.68	16.32	5	40	5	200	1.0	0.1	11.5	12.30	UT
PZS52B18M1Q	18	17.64	18.36	5	45	5	225	1.0	0.1	12.6	14.30	UV
PZS52B20M1Q	20	19.60	20.40	5	55	5	225	1.0	0.1	14	16.30	UW
PZS52B22M1Q	22	21.56	22.44	5	55	5	250	1.0	0.1	15.4	18.30	UX
PZS52B24M1Q	24	23.52	24.48	5	70	5	250	1.0	0.1	16.8	20.72	UY
PZS52B27M1Q	27	26.46	27.54	2	80	2	300	0.5	0.1	18.9	23.70	UZ
PZS52B30M1Q	30	29.40	30.60	2	80	2	300	0.5	0.1	21	26.70	VB
PZS52B33M1Q	33	32.34	33.66	2	80	2	325	0.5	0.1	23.1	29.70	VC
PZS52B36M1Q	36	35.28	36.72	2	90	2	350	0.5	0.1	25.2	32.70	VD
PZS52B39M1Q	39	38.22	39.78	2	90	2	350	0.5	0.1	27.3	35.70	VE
PZS52B43M1Q	43	42.14	43.86	2	100	2	375	0.5	0.1	30.1	39.70	VF
PZS52B47M1Q	47	46.06	47.94	2	170	2	375	0.5	0.1	32.9	43.48	VG

NOTES :

1. Mounted on a 10x10cm copper pads to each terminal.
2. Mounted on a FR-4 PCB, single-sided copper, Standard footprint.

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TYPICAL CHARACTERISTIC CURVES

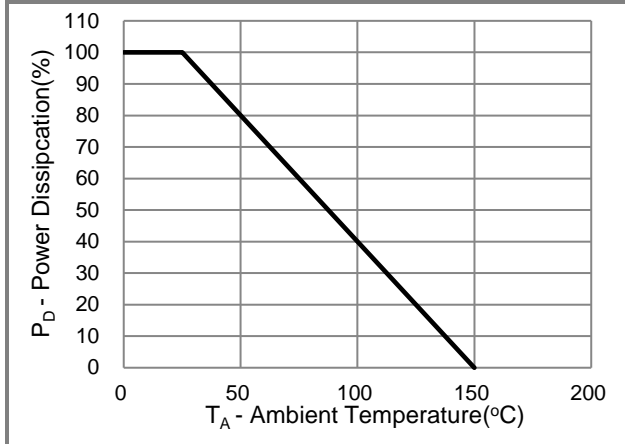


Fig.1 Power Rating Curve

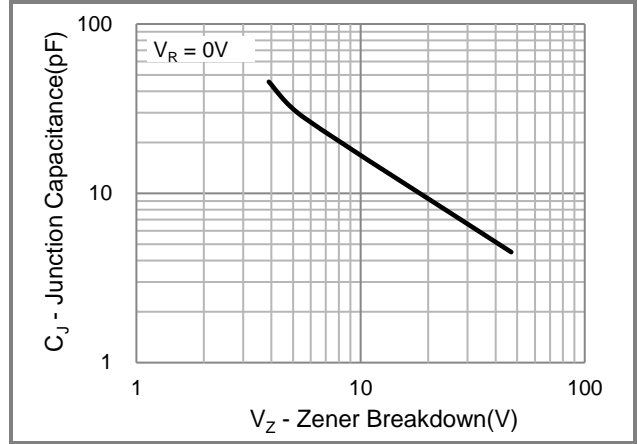


Fig.2 Typical Junction Capacitance

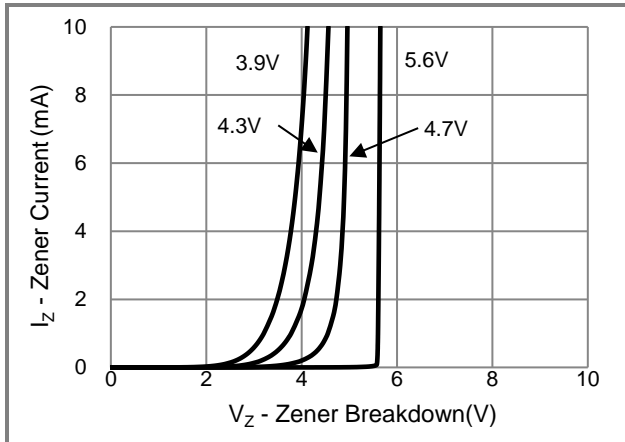


Fig.3 Typical Zener Breakdown

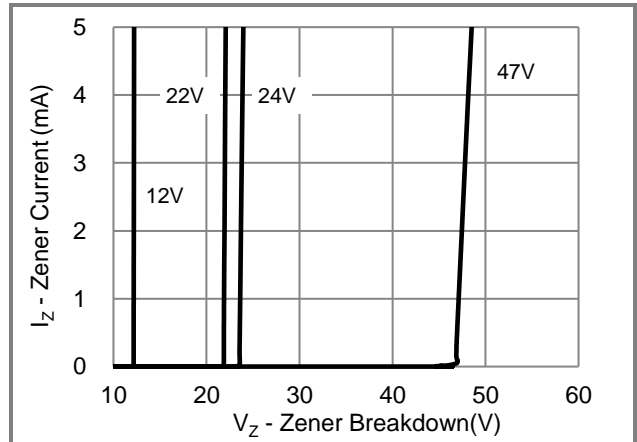


Fig.4 Typical Junction Capacitance

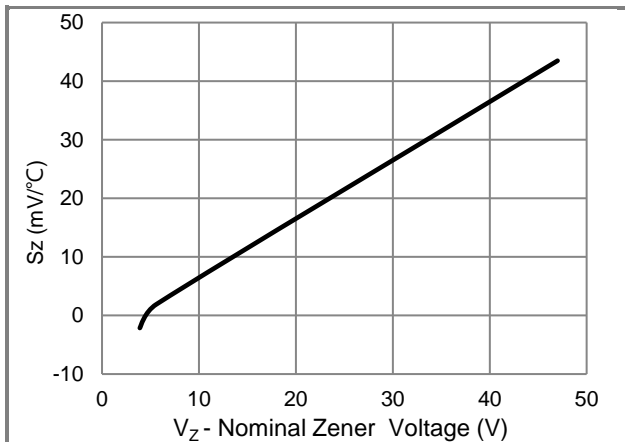


Fig.5 Typical Temperature coefficient

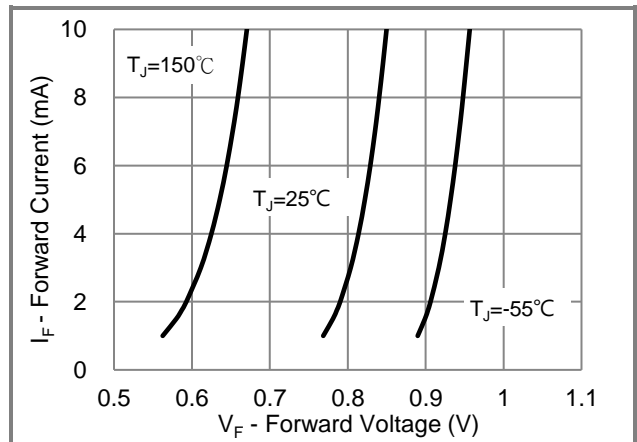


Fig.6 Typical Forward Characteristics

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TYPICAL CHARACTERISTIC CURVES

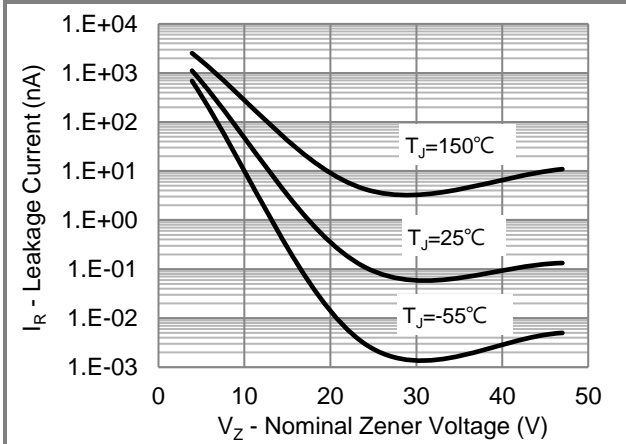


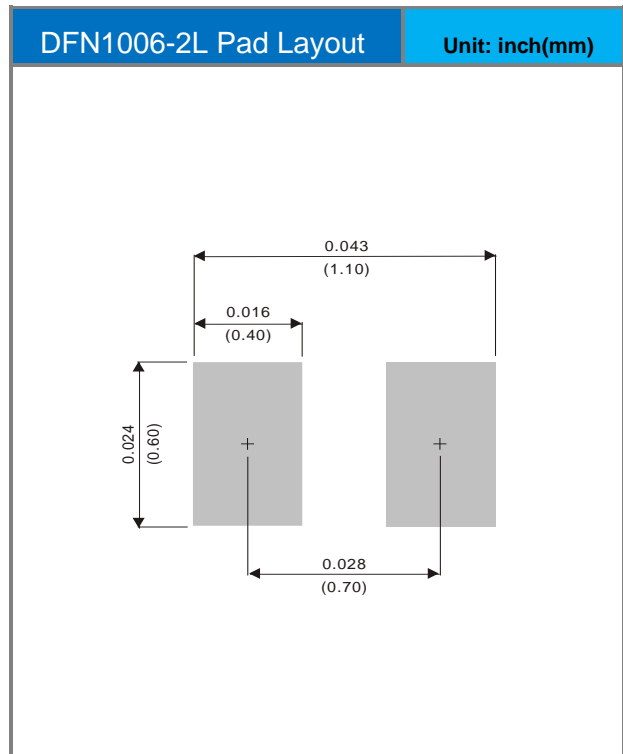
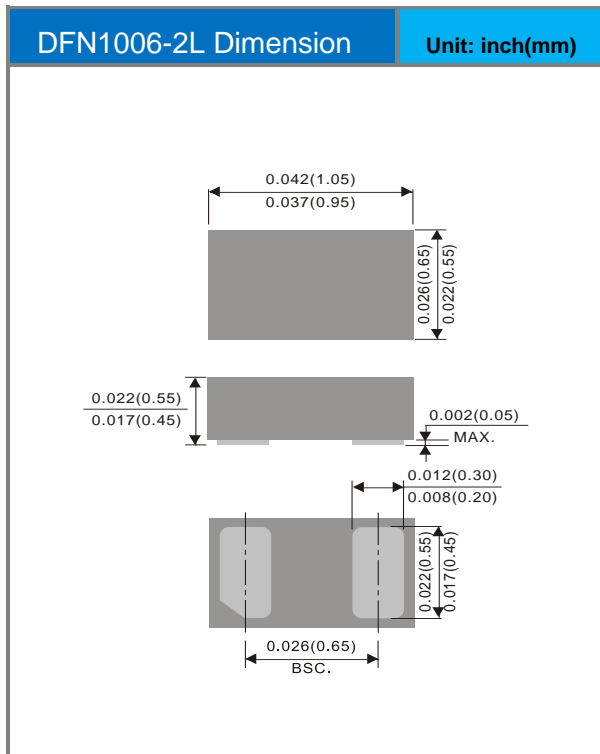
Fig.7 Typical Leakage Current

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Product and Packing Information

Part No.	Package Type	Packing Type	Marking
PZS52BxxxM1Q	DFN1006-2L	10K pcs / 7" reel	See Table

Packaging Information & Mounting Pad Layout



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