

PZS52C3V9M1Q ~ PZS52C47M1Q Series

Silicon Zener Diode

Voltage

3.9~47 V

Power

250 mW

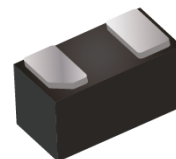
Features

- 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 ($T_A = 25^\circ\text{C}$ unless otherwise noted)

PARAMETER	SYMBOL	LIMIT	UNITS
Peak Pulse Power Dissipation at $T_A = 25^\circ\text{C}$ (Note 1)	P_D	250	mW
Typical Thermal Resistance Junction to Ambient (Note 2)	$R_{\theta JA}$	500	$^\circ\text{C/W}$
Forward Voltage at $I_F = 10\text{mA}$	V_F	0.9	V
Operating Junction Temperature Range	T_J	-55~150	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55~150	$^\circ\text{C}$

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Electrical Characteristics ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Part Number	Nominal Zener Voltage				Nominal Zener Impedance				Max. Reverse Leakage Current		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	μA	V	
PZS52C3V9M1Q	3.9	3.71	4.10	5	90	5	500	1.0	3.0	1	UA
PZS52C4V3M1Q	4.3	4.09	4.52	5	90	5	600	1.0	3.0	1	UB
PZS52C4V7M1Q	4.7	4.47	4.94	5	80	5	500	1.0	3.0	2	UC
PZS52C5V1M1Q	5.1	4.85	5.36	5	60	5	480	1.0	2.0	2	UD
PZS52C5V6M1Q	5.6	5.32	5.88	5	40	5	400	1.0	1.0	2	UE
PZS52C6V2M1Q	6.2	5.89	6.51	5	10	5	150	1.0	3.0	4	UF
PZS52C6V8M1Q	6.8	6.46	7.14	5	15	5	80	1.0	2.0	4	UG
PZS52C7V5M1Q	7.5	7.13	7.88	5	15	5	80	1.0	1.0	5	UH
PZS52C8V2M1Q	8.2	7.79	8.61	5	15	5	80	1.0	0.7	5	UJ
PZS52C9V1M1Q	9.1	8.65	9.56	5	15	5	100	1.0	0.5	6	UL
PZS52C10M1Q	10	9.50	10.50	5	20	5	150	1.0	0.2	7	UM
PZS52C11M1Q	11	10.45	11.55	5	20	5	150	1.0	0.1	8	UN
PZS52C12M1Q	12	11.40	12.60	5	25	5	150	1.0	0.1	8	UP
PZS52C13M1Q	13	12.35	13.65	5	30	5	170	1.0	0.1	8	UQ
PZS52C15M1Q	15	14.25	15.75	5	30	5	200	1.0	0.1	10.5	US
PZS52C16M1Q	16	15.20	16.80	5	40	5	200	1.0	0.1	11.2	UT
PZS52C18M1Q	18	17.10	18.90	5	45	5	225	1.0	0.1	12.6	UV
PZS52C20M1Q	20	19.00	21.00	5	55	5	225	1.0	0.1	14	UW
PZS52C22M1Q	22	20.90	23.10	5	55	5	250	1.0	0.1	15.4	UX
PZS52C24M1Q	24	22.80	25.20	5	70	5	250	1.0	0.1	16.8	UY
PZS52C27M1Q	27	25.65	28.35	2	80	2	300	0.5	0.1	18.9	UZ
PZS52C30M1Q	30	28.50	31.50	2	80	2	300	0.5	0.1	21	VB
PZS52C33M1Q	33	31.35	34.65	2	80	2	325	0.5	0.1	23.1	VC
PZS52C36M1Q	36	34.20	37.80	2	90	2	350	0.5	0.1	25.2	VD
PZS52C39M1Q	39	37.05	40.95	2	90	2	350	0.5	0.1	27.3	VE
PZS52C43M1Q	43	40.85	45.15	2	100	2	375	0.5	0.1	30.1	VF
PZS52C47M1Q	47	44.65	49.35	2	170	2	375	0.5	0.1	32.9	VG

NOTES :

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

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TYPICAL CHARACTERISTIC CURVES

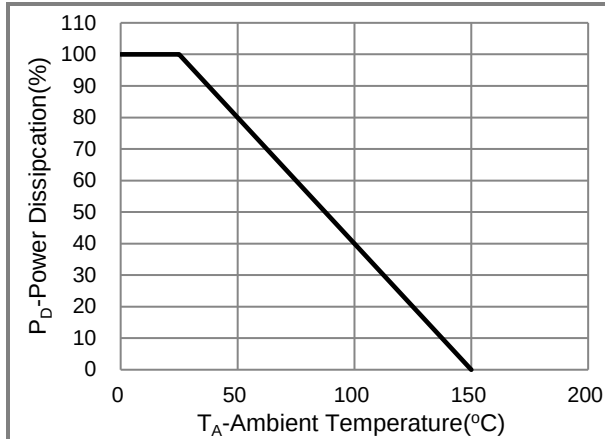


Fig.1 Power Rating Curve

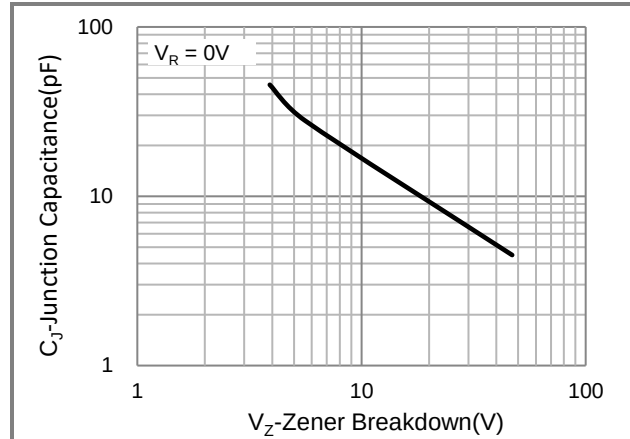


Fig.2 Typical Junction Capacitance

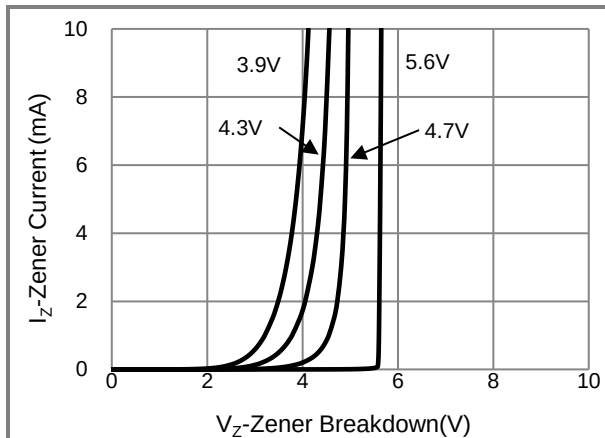


Fig.3 Typical Zener Breakdown

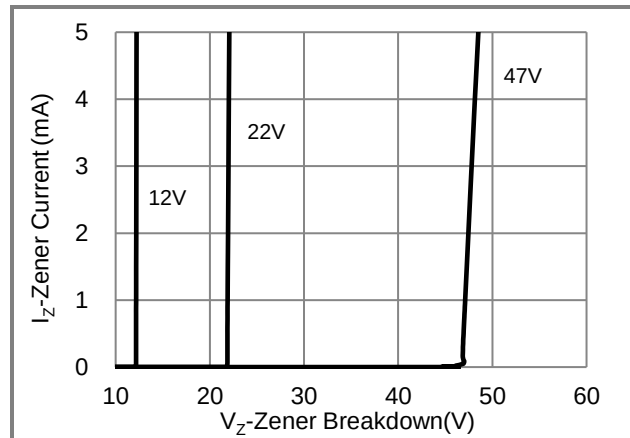


Fig.4 Typical Junction Capacitance

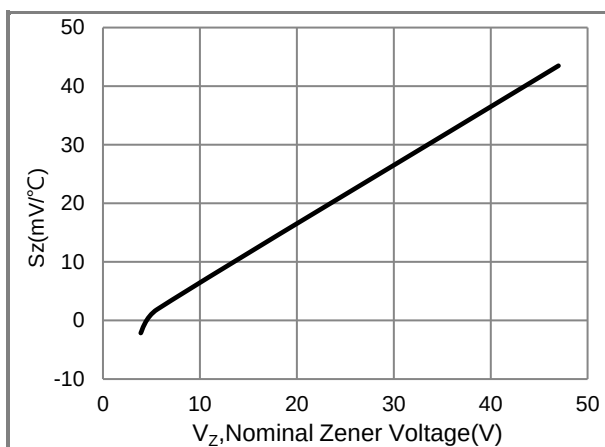


Fig.5 Typical Temperature coefficient

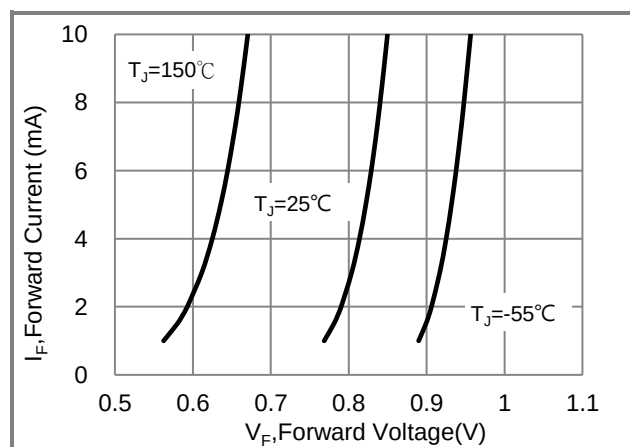


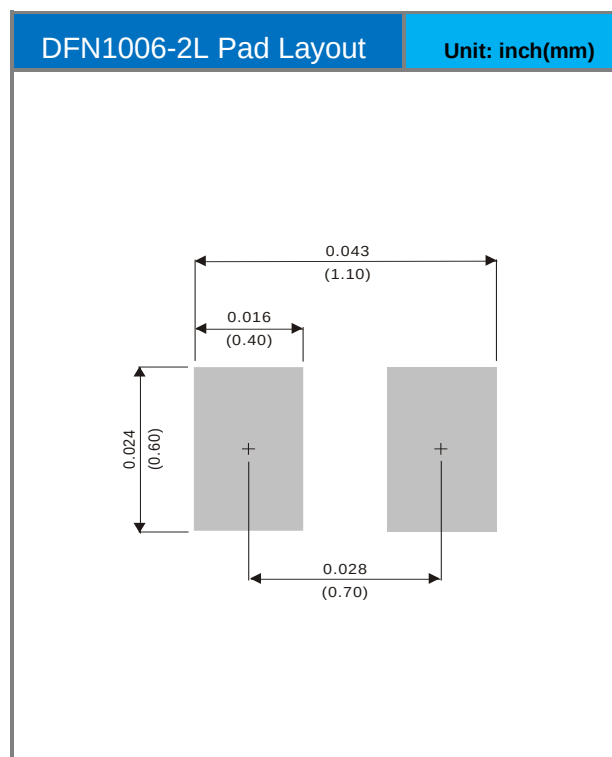
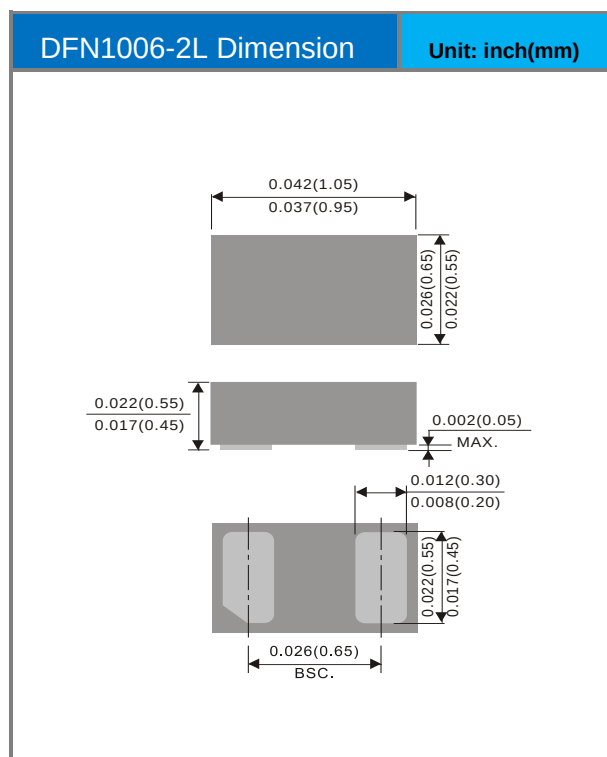
Fig.6 Typical Forward Characteristics

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Product and Packing Information

Part No.	Package Type	Packing Type	Marking
PZS52CxxxM1Q	DFN1006-2L	10K pcs / 7" reel	See Table

Packaging Information & Mounting Pad Layout



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