

ZENER DIODES

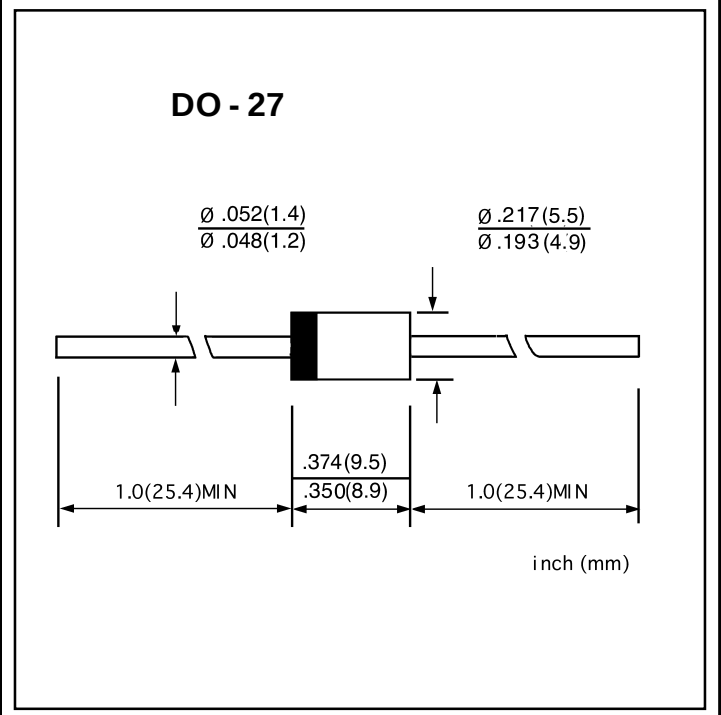
V_Z RANGE: 1.0, 3.9 - 200V
POWER DISSIPATION: 5.0 W

FEATURES

- ◇ Silicon planar power zener diodes
- ◇ For use in stabilizing and clipping circuits with high power rating.
- ◇ The zener voltages are graded according to the international E 12 standard. Smaller voltage tolerances are available upon request.
- ◇ These diodes are also available in the MELF case with the type designation ZMY10...ZMY100.

MECHANICAL DATA

- ◇ Case: DO-27, plastic case
- ◇ Terminals: solderable per MIL-STD-202, method 208
- ◇ Polarity: cathode band
- ◇ Marking: type number
- ◇ Approx. weight: 1.15 grams.



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

	SYMBOL	VALUE	UNIT
Zener current (see Table "Characteristics")			
Power dissipation at T _{amb} =25°C	P _{tot}	5 ⁽¹⁾	W
Thermal resistance junction to ambient air	R _{thA}	<25 ⁽¹⁾	°C/W
Junction temperature	T _J	-50---+150	°C
Storage temperature range	T _s	-50---+175	°C
Thermal resistance junction to lead	R _{thL}	<8	K/W

NOTES: (1) Valid provided that leads are kept at ambient temperature at a distance of 10mm from case .

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ELECTRICAL CHARACTERISTICS (T_A=25°C)

Type	Nominal zener voltage	Test current	Maximum dynamic impedance	Typical temperature coefficient	Reverse voltage	Maximum regulator current
	V _Z @ I _{ZT}	I _{ZT}	I _{ZT}	α _{VZ}	I _R =1μA	I _{ZM} @ T _{amb} =50°C
	V	mA	Ω	%/°C	V	mA
BZV58C8.2	7.7---8.7	150	<1.5	+3 --- +8	> 3(7.5μA)	570
BZV58C9.1	8.5---9.6	150	<2	+3 --- +8	> 6.6(7.5μA)	520
BZV58C10	9.4---10.6	125	<2	+5 --- +9	> 7.6(5μA)	470
BZV58C11	10.4---11.6	125	<2.5	+5 --- +10	> 8.3(5μA)	430
BZV58C12	11.4---12.7	100	<2.5	+5 --- +10	> 9.1(2μA)	390
BZV58C13	12.4---14.1	100	<2.5	+5 --- +10	> 9.9	350
BZV58C15	13.8---15.6	75	<2.5	+5 --- +10	> 11.4	320
BZV58C16	15.3---17.1	75	<2.5	+6 --- +11	> 12.2	290
BZV58C18	16.8---19.1	65	<2.5	+6 --- +11	> 13.7	260
BZV58C20	18.8---21.2	65	<3	+6 --- +11	> 15.2	235
BZV58C22	20.8---23.3	50	<3.5	+6 --- +11	> 16.7	215
BZV58C24	22.8---25.6	50	<3.5	+6 --- +11	> 18.2	195
BZV58C27	25.1---28.9	50	<5	+6 --- +11	> 20.5	170
BZV58C30	28---32	40	<8	+6 --- +11	> 22.8	155
BZV58C33	31---35	40	<10	+6 --- +11	> 25	140
BZV58C36	34---38	30	<11	+6 --- +11	> 27.4	130
BZV58C39	37---41	30	<14	+6 --- +11	> 29.6	120
BZV58C43	40---46	30	<20	+7 --- +12	> 32.7	110
BZV58C47	44---50	25	<25	+7 --- +12	> 35.7	100
BZV58C51	48---54	25	<27	+7 --- +12	> 38.8	92
BZV58C56	52---60	20	<35	+7 --- +12	> 42.5	83
BZV58C62	58---66	20	<42	+8 --- +13	> 47.1	75
BZV58C68	64---72	20	<44	+8 --- +13	> 51.7	69
BZV58C75	70---79	20	<45	+8 --- +13	> 57	63
BZV58C82	77---88	15	<65	+8 --- +13	> 62.4	57
BZV58C91	85---96	15	<75	+9 --- +13	> 69.2	52
BZV58C100	94---106	12	<90	+9 --- +13	> 76	47
BZV58C110	104---116	12	<125	+9 --- +13	> 83.5	43
BZV58C120	114---127	10	<170	+9 --- +13	> 91.2	39
BZV58C130	124---141	10	<190	+9 --- +13	> 98.8	35
BZV58C150	138---156	8	<330	+9 --- +13	> 114	32
BZV58C160	153---171	8	<350	+9 --- +13	> 122	29

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