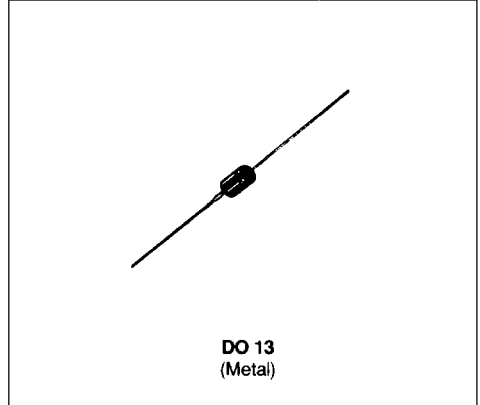




**ZENER DIODES**

- VOLTAGE RANGE : 6.8V TO 200V
- WELDED, HERMETICALLY SEALED METAL CASE
- PACKAGE ACCORDING TO NORMALIZATION  
CCTU : F61 AND JEDEC DO-13



**DESCRIPTION**

1W silicon Zener diodes.

**ABSOLUTE RATINGS** (limiting values)

Symbol	Parameter		Value	Unit
$P_{tot}$	Power Dissipation*	$T_{amb} = 50^{\circ}C$	1	W
$I_{zM}$	Continuous Reverse Current*	$T_{amb} = 50^{\circ}C$	See page 2	mA
$T_{stg}$ $T_J$	Storage and Junction Temperature Range		- 65 to 175	$^{\circ}C$
$T_L$	Maximum Lead Temperature for Soldering during 10s at 4mm from case		230	$^{\circ}C$

**THERMAL RESISTANCE**

Symbol	Parameter	Value	Unit
$R_{th(j-a)}$	Junction-ambient*	125	$^{\circ}C/W$

\* On printed circuit : d = 25mm.

**ELECTRICAL CHARACTERISTICS** ( $T_{amb} = 25^{\circ}\text{C}$  unless otherwise specified)

Types	$V_{ZT}/I_{ZT}^*$	$r_{ZT}/I_{ZT}^*$	$I_{ZT}^*$	$r_{ZK}/I_{ZK}$		$^{\infty}V_Z$	$I_R/V_R$	$V_R$	$I_{ZM}^*$	
	nom (V)	max ( $\Omega$ )	(mA)	max ( $\Omega$ ) (mA)		typ ( $10^{-4}, ^{\circ}\text{C}$ )	max ( $\mu\text{A}$ )	(V)	$T_{amb}$ 50 $^{\circ}\text{C}$ (mA)	
P	1N 3016 B	6.8	3.5	37	700	1.0	4	150	5.2	140
	1N 3017 B	7.5	4	34	700	0.5	4.5	100	5.7	130
	1N 3018 B	8.2	4.5	31	700	0.5	4.8	50	6.2	110
	1N 3019 B	9.1	5	28	700	0.5	5.1	25	6.9	100
P	1N 3020 B	10	7	25	700	0.25	5.5	25	7.6	94
	1N 3021 B	11	8	23	700	0.25	6	5	8.4	86
P	1N 3022 B	12	9	21	700	0.25	6.5	5	9.1	79
	1N 3023 B	13	10	19	700	0.25	6.5	5	9.9	71
	1N 3024 B	15	14	17	700	0.25	7	5	11.4	64
	1N 3025 B	16	16	15.5	700	0.25	7	5	12.2	59
	1N 3026 B	18	20	14	750	0.25	7.5	5	13.7	52
	1N 3027 B	20	22	12.5	750	0.25	7.5	5	15.2	47
	1N 3028 B	22	23	11.5	750	0.25	8	5	16.7	43
P	1N 3029 B	24	25	10.5	750	0.25	8	5	18.2	39
	1N 3030 B	27	35	9.5	750	0.25	8.5	5	20.6	35
	1N 3031 B	30	40	8.5	1000	0.25	8.5	5	22.8	31
	1N 3032 B	33	45	7.5	1000	0.25	8.5	5	25.1	29
	1N 3032 B	36	50	7	1000	0.25	8.5	5	27.4	26
	1N 3034 B	39	60	6.5	1000	0.25	9	5	29.7	24
	1N 3035 B	43	70	6	1500	0.25	9	5	32.7	22
	1N 3036 B	47	80	5.5	1500	0.25	9	5	35.8	20
	1N 3037 B	51	95	5	1500	0.25	9	5	38.8	19
	1N 3038 B	56	110	4.5	2000	0.25	9	5	42.6	17
	1N 3039 B	62	125	4	2000	0.25	9	5	47.1	15
	1N 3040 B	68	150	3.7	2000	0.25	9	5	51.7	14
	1N 3041 B	75	175	3.3	2000	0.25	9	5	56	13
	1N 3042 B	82	200	3	3000	0.25	9	5	62.2	12
	1N 3043 B	91	250	2.8	3000	0.25	9	5	69.2	10
	1N 3044 B	100	350	2.5	3000	0.25	9	5	76	9.4
	1N 3045 B	110	450	2.3	4000	0.25	9.5	5	83.6	8.6
	1N 3046 B	120	550	2	4500	0.25	9.5	5	91.2	7.8
	1N 3047 B	130	700	1.9	5000	0.25	9.5	5	98.8	7.0
	1N 3048 B	150	1000	1.7	6000	0.25	9.5	5	114	6.4
	1N 3049 B	160	1100	1.6	6500	0.25	9.5	5	121.6	5.8
	1N 3050 B	180	1200	1.4	7000	0.25	9.5	5	136.8	5.2
	1N 3051 B	200	1500	1.2	8000	0.25	10	5	152	4.7

\* Measure under thermal equilibrium and DC current test conditions.

\* \* on printed circuit : d = 25mm.

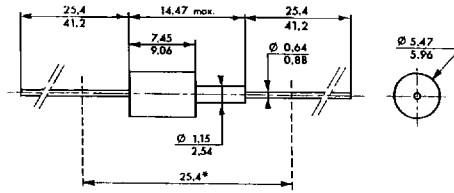
Tolerance on nominal  $V_{ZT}$  values :  $\pm 5\%$ .

**P** : Preferred voltages.

Forward voltage drop :  $V_F \leq 1.5\text{V}$  ( $T_{amb} = 25^{\circ}\text{C}$ ,  $I_F = 200\text{mA}$ ).

## PACKAGE MECHANICAL DATA

DO 13 Metal



\* The minimum axial length in which the device with its outputs bent at right angles can be placed is 25.4mm.

Cooling method : by convection (method A).

Marking : type number.

Weight : 1.5g