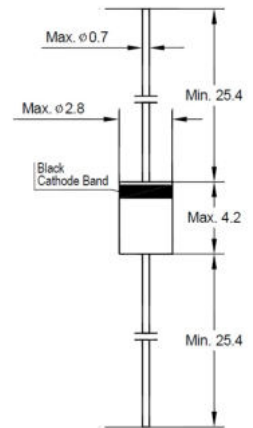


## Features

- Silicon planar power zener diodes
- For use in stabilizing and clipping circuits with high power rating



Glass Case DO-41  
Dimensions in mm

## Absolute Maximum Ratings ( $T_a = 25\text{ }^\circ\text{C}$ )

Parameter	Symbol	Value	Unit
Power Dissipation	$P_{tot}$	1.3 <sup>1)</sup>	W
Junction Temperature	$T_j$	200	$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	- 55 to + 200	$^\circ\text{C}$
<sup>1)</sup> Valid provided that leads at a distance of 8 mm from case are kept at ambient temperature.			

## Characteristics at $T_a = 25\text{ }^\circ\text{C}$

Parameter	Symbol	Max.	Unit
Thermal Resistance Junction to Ambient Air	$R_{thA}$	130 <sup>1)</sup>	K/W
Forward Voltage at $I_F = 200\text{ mA}$	$V_F$	1.2	V
<sup>1)</sup> Valid provided that leads at a distance of 8 mm from case are kept at ambient temperature.			

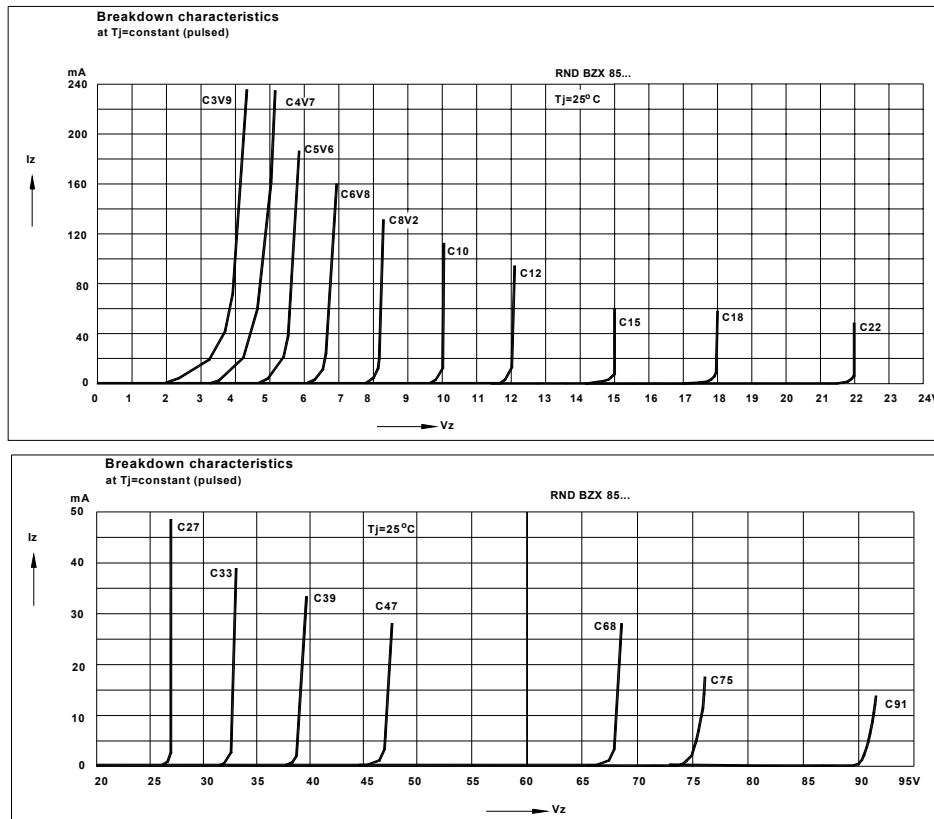
## Product Range

Characteristics at  $T_a = 25\text{ }^\circ\text{C}$

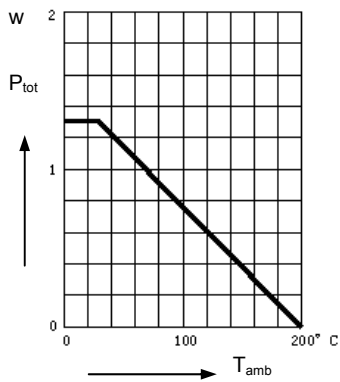
Type	Zener Voltage <sup>1)</sup>			Dynamic Resistance				Reverse Current	
	$V_{Znom}$	$V_{ZT}$	at $I_{ZT}$	$Z_{ZT}$	at $I_{ZT}$	$Z_{ZK}$	at $I_{ZK}$	$I_R$	at $V_R$
	(V)	(V)	(mA)	Max. ( $\Omega$ )	(mA)	Max. ( $\Omega$ )	(mA)	Max. ( $\mu\text{A}$ )	(V)
RND BZX85C75	75	70...79	4	135	4	2000	0.25	0.5	56
RND BZX85C3V3	3.3	3.1...3.5	70	20	70	400	0.25	40	1
RND BZX85C62	68	64...72	4	130	4	2000	1	0.5	51
RND BZX85C3V9	3.9	3.7...4.1	60	15	60	500	1	10	1
RND BZX85C43	43	40...46	6	50	6	1000	0.25	0.5	36
RND BZX85C4V7	4.7	4.4...5	45	13	45	600	1	3	1
RND BZX85C5V1	5.1	4.8...5.4	45	10	45	500	1	1	1.5
RND BZX85C5V6	5.6	5.2...6	45	7	45	400	1	1	2
RND BZX85C6V2	6.2	5.8...6.6	35	4	35	300	1	1	3
RND BZX85C6V8	6.8	6.4...7.2	35	3.5	35	300	1	1	4
RND BZX85C7V5	7.5	7...7.9	35	3	35	200	0.5	1	4.5
RND BZX85C8V2	8.2	7.7...8.7	25	5	25	200	0.5	1	6.2
RND BZX85C9V1	9.1	8.5...9.6	25	5	25	200	0.5	1	6.8
RND BZX85C10	10	9.4...10.6	25	7	25	200	0.5	0.5	7
RND BZX85C33	33	31...35	8	40	8	1000	0.25	0.5	27
RND BZX85C12	12	11.4...12.7	20	9	20	350	0.5	0.5	9.1
RND BZX85C13	13	12.4...14.1	20	10	20	400	0.5	0.5	10
RND BZX85C15	15	13.8...15.6	15	15	15	500	0.5	0.5	11
RND BZX85C16	16	15.3...17.1	15	15	15	500	0.5	0.5	12
RND BZX85C18	18	16.8...19.1	15	20	15	500	0.5	0.5	13
RND BZX85C20	20	18.8...21.2	10	24	10	600	0.5	0.5	15
RND BZX85C30	30	28...32	8	30	8	1000	0.25	0.5	22
RND BZX85C24	24	22.8...25.6	10	25	10	600	0.5	0.5	18
RND BZX85C27	27	25.1...28.9	8	30	8	750	0.25	0.5	20

<sup>1)</sup> Tested with pulses  $t_p = 20\text{ ms}$ .

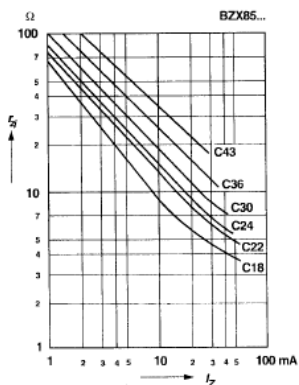
# Zener Diodes



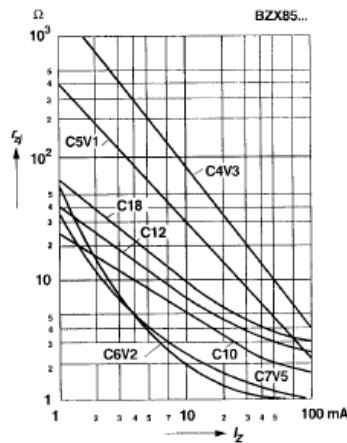
Admissible power dissipation  
Versus ambient temperature  
Valid provided that leads are kept at ambient  
Temperature at a distance of 10 mm from case



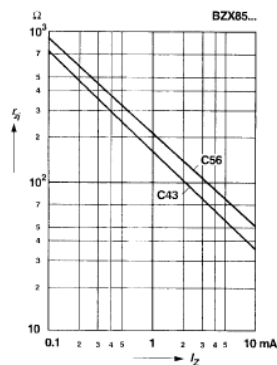
Dynamic resistance  
versus Zener current



Dynamic resistance  
versus Zener current

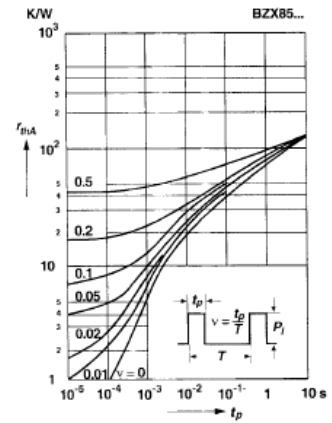


Dynamic resistance  
versus Zener current



Pulse thermal resistance  
versus pulse duration

Valid provided that leads are kept at ambient  
temperature at a distance of 10 mm from case.



Thermal resistance  
versus lead length

