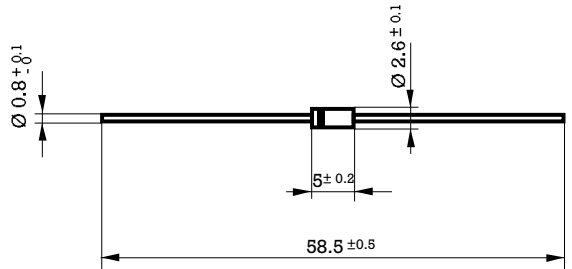



## 1.3 W Glass Passivated Zener Diodes

<p><b>Dimensions in mm.</b></p>  <p><b>DO-41 (Plastic)</b></p> <p><b>Mounting instructions</b></p> <ol style="list-style-type: none"> <li>1. Min. distance from body to soldering point, 4 mm.</li> <li>2. Max. solder temperature, 350 °C.</li> <li>3. Max. soldering time, 3.5 sec.</li> <li>4. Do not bend lead at a point closer than 2 mm. to the body.</li> </ol>	<p><b>Voltage</b> 6.2 to 220 V</p> <p><b>Power</b> 1.3 W</p>  <p>Standard Voltage Tolerance is <math>\pm 5\%</math></p> <ul style="list-style-type: none"> <li>• <b>Glass Passivated Junction</b></li> <li>• The plastic material carries U/L recognition 94 V-0</li> <li>• Terminals: Axial Leads</li> <li>• Polarity: Color band denotes cathode</li> </ul>
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### Maximum Ratings, according to IEC publication No. 134

$P_{tot}$	Power dissipation at $T_{amb} = 25\text{ °C}$	1.3 W
$T_j$	Operating temperature range	- 55 to + 175 °C
$T_{stg}$	Storage temperature range	- 55 to + 175 °C

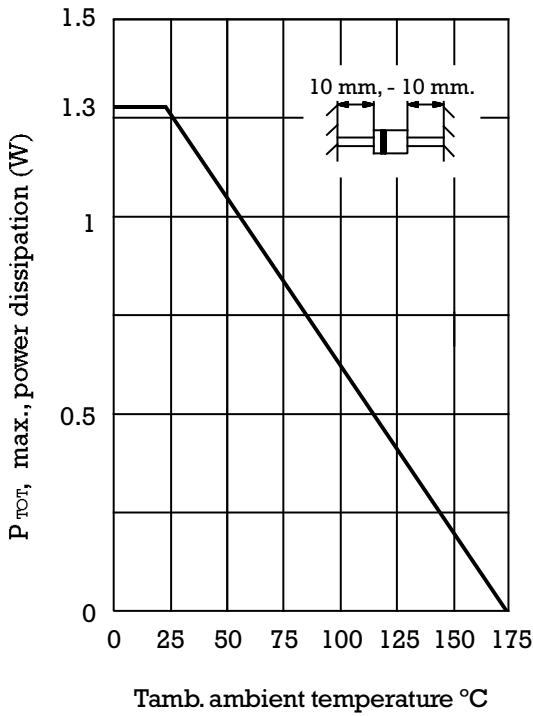
### Electrical Characteristics at $T_{amb} = 25\text{ °C}$

$V_F$	Max. forward voltage drop at $I_F = 0.2\text{ A}$	1.0 V
$R_{thj-a}$	Max. thermal resistance at 10 mm. lead length	130 °C/W

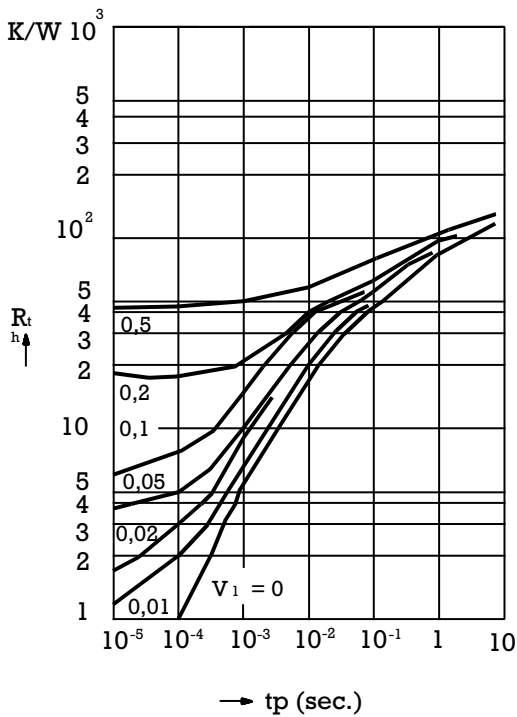
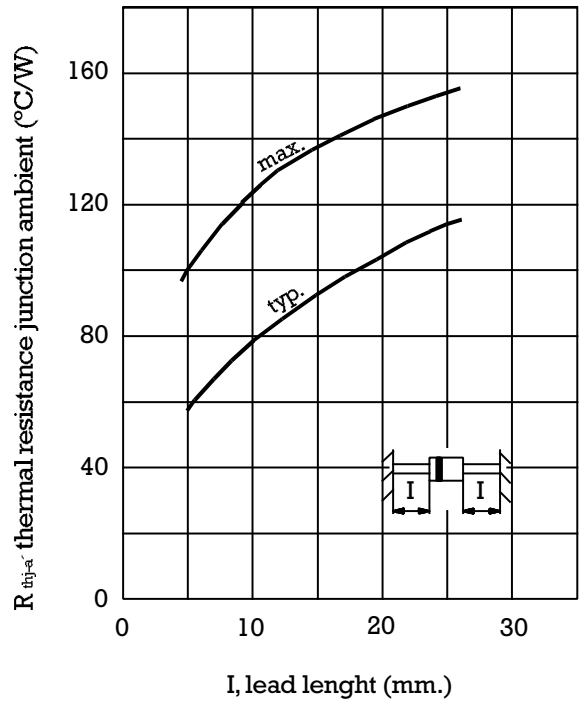
## 1.3 W Glass Passivated Zener Diodes

Type	Zener Voltage Range $V_Z$ at $I_{ZT}$		Maximum Zener Impedance $Z_{ZT}$ at $I_{ZT}$	Typical Temperature Coeffi. (%) / °C	Max Reverse Leakage current		Surge Current (10 ms) $I_{ZS}$	Maximum Regulator Current $I_{ZM}$
	(V)	(mA)			( )	$I_R$ @ $V_R$		
BZX85C6V2GP	5.8 - 6.6	35	4	+ 0.025	5	3	1263	170
BZX85C6V8GP	6.4 - 7.2	35	3.5	+ 0.035	5	4	1157	155
BZX85C7V5GP	7.0 - 7.9	35	3	+ 0.035	5	5	1055	140
BZX85C8V2GP	7.7 - 8.7	25	5	+ 0.055	5	6	958	130
BZX85C9V1GP	8.5 - 9.6	25	5	+ 0.055	5	7	868	120
BZX85C10GP	9.4 - 10.6	25	7	+ 0.06	1	5.0	786	105
BZX85C11GP	10.4 - 11.6	20	8	+ 0.0625	1	5.0	718	97
BZX85C12GP	11.4 - 12.7	20	9	+ 0.065	1	7.0	656	88
BZX85C13GP	12.4 - 14.1	20	10	+ 0.0675	1	7.0	591	79
BZX85C15GP	13.8 - 15.6	15	15	+ 0.0725	1	10	534	71
BZX85C16GP	15.3 - 17.1	15	15	+ 0.0725	1	10	487	66
BZX85C18GP	16.8 - 19.1	15	20	+ 0.075	1	10	436	62
BZX85C20GP	18.8 - 21.2	10	24	+ 0.075	1	10	393	56
BZX85C22GP	20.8 - 23.3	10	25	+ 0.0775	1	12	358	52
BZX85C24GP	22.8 - 25.6	10	25	+ 0.0775	1	12	326	47
BZX85C27GP	25.1 - 28.9	8	30	+ 0.0775	1	14	288	41
BZX85C30GP	28 - 32	8	30	+ 0.0775	1	14	260	36
BZX85C33GP	31 - 35	8	35	+ 0.0775	1	17	238	33
BZX85C36GP	34 - 38	8	40	+ 0.0775	1	17	219	30
BZX85C39GP	37 - 41	6	50	+ 0.0775	1	20	203	28
BZX85C43GP	40 - 46	6	50	+ 0.0775	1	20	181	26
BZX85C47GP	44 - 50	4	90	+ 0.0775	1	24	167	23
BZX85C51GP	48 - 54	4	115	+ 0.0775	1	24	154	21
BZX85C56GP	52 - 60	4	120	+ 0.0775	1	28	139	19
BZX85C62GP	58 - 66	4	125	+ 0.0775	1	28	126	16
BZX85C68GP	64 - 72	4	130	+ 0.0775	1	34	116	15
BZX85C75GP	70 - 80	4	135	+ 0.0775	1	34	104	14
BZX85C82GP	77 - 87	2.7	200	+ 0.095	1	41	96	12
BZX85C91GP	85 - 96	2.7	250	+ 0.095	1	41	87	10
BZX85C100GP	94 - 106	2.7	350	+ 0.095	1	50	79	9.4
BZX85C110GP	104 - 116	2.7	450	+ 0.095	1	50	72	8.6
BZX85C120GP	114 - 127	2	550	+ 0.095	1	60	66	7.8
BZX85C130GP	124 - 141	2	700	+ 0.095	1	60	59	7.0
BZX85C150GP	138 - 156	2	1000	+ 0.095	1	75	53	6.4
BZX85C160GP	153 - 171	1.5	1100	+ 0.095	1	75	49	5.8
BZX85C180GP	168 - 191	1.5	1200	+ 0.095	1	90	44	5.2
BZX85C200GP	188 - 212	1.5	1500	+ 0.095	1	90	39	4.7
BZX85C220GP	207 - 233	1.5	1500	+ 0.095	1	110	36	4.2

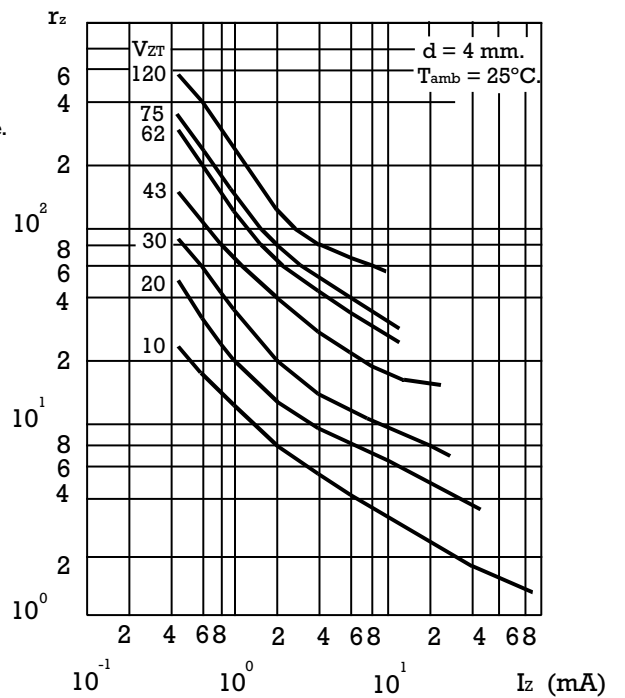
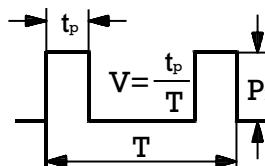
**MAXIMUM CONTINUOUS POWER DISSIPATION**



**THERMAL RESISTANCE**



Pulse thermal resistance versus pulse duration. Valid provided that leads are kept at ambient temperature at a distance of 10 mm. from case.



Diferential resistance  $r_z$  vs, current  $I_z$  for several regulation voltages  $V_{ZT}$

Test conditions: AC signal, amplitude  $i_z = 10\%$  of  $I_z$ ,  $f = 1 \text{ kHz}$

BREAKDOWN CHARACTERISTICS

