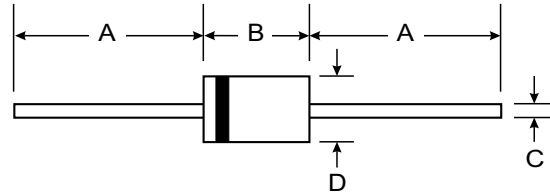


Features

- Glass passivated junction
- Hermetically sealed package
- Low reverse current
- High surge current loading



Mechanical Data

- Case: Molded Plastic

DO-15		
Dim	Min	Max
A	25.40	—
B	5.50	7.62
C	0.686	0.889
D	2.60	3.60
All Dimensions in mm		

Maximum Ratings and Electrical Characteristics @ T_A = 25°C unless otherwise specified

Parameter	Test Conditions	Type	Symbol	Value	Unit		
Reverse voltage =Repetitive peak reverse voltage		BYX82	$V_R=V_{RRM}$	200	V		
		BYX83	$V_R=V_{RRM}$	400	V		
		BYX84	$V_R=V_{RRM}$	600	V		
		BYX85	$V_R=V_{RRM}$	800	V		
		BYX86	$V_R=V_{RRM}$	1000	V		
Peak forward surge current	$t_p=10\text{ms}$, half sinewave		I_{FSM}	50	A		
Repetitive peak forward current			I_{FRM}	10	A		
Average forward current	$T_{amb} \leq 45^\circ\text{C}$		I_{FAV}	2	A		
i^2t -rating			i^2t	8	A ² *s		
Junction and storage temperature range			$T_j=T_{stg}$	-65...+175	°C		
Parameter	Test Conditions	Type	Symbol	Min	Typ	Max	Unit
Forward voltage	$I_F=1\text{A}$		V_F		0.9	1.0	V
Reverse current	$V_R=V_{RRM}$		I_R		0.1	1	μA
	$V_R=V_{RRM}$, $T_j=100^\circ\text{C}$		I_R		10	25	μA
Diode capacitance	$V_R=4\text{V}$, $f=0.47\text{MHz}$		C_D		20		pF
Reverse recovery time	$I_F=0.5\text{A}$, $I_R=1\text{A}$, $i_R=0.25\text{A}$		t_{rr}		2	4	μs
Reverse recovery charge	$I_F=I_R=1\text{A}$, $di/dt=5\text{A}/\mu\text{s}$		Q_{rr}		3	6	μC

Characteristics ($T_j = 25^\circ\text{C}$ unless otherwise specified)

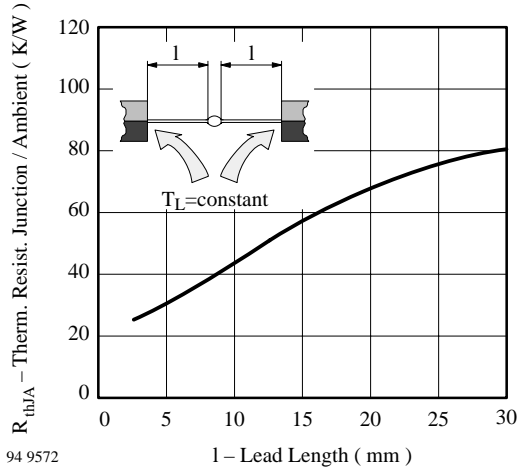


Figure 1. Max. Thermal Resistance vs. Lead Length

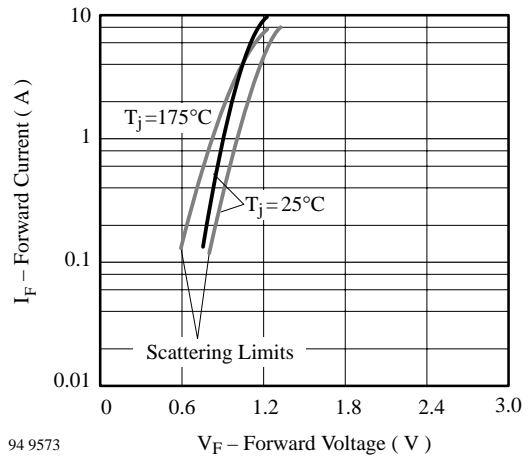


Figure 3. Forward Current vs. Forward Voltage

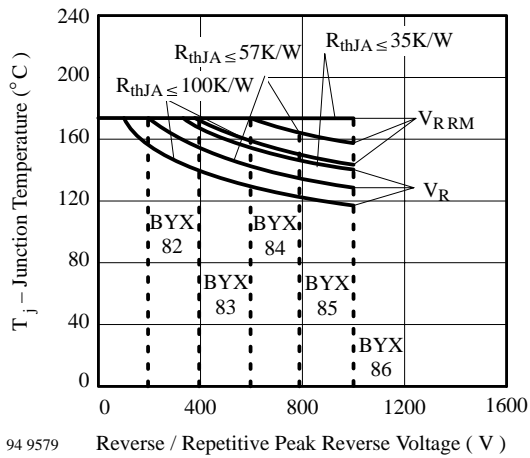


Figure 2. Junction Temperature vs. Reverse/Repetitive Peak Reverse Voltage

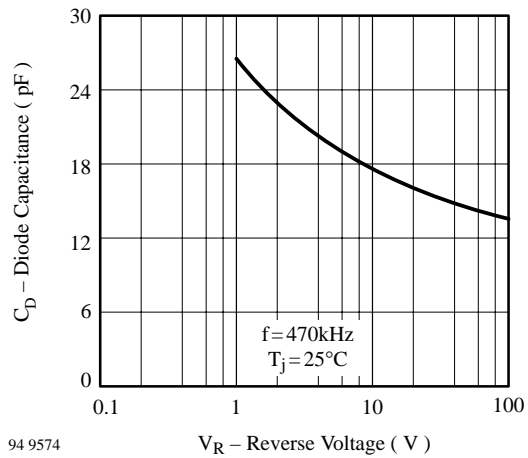


Figure 4. Typ. Diode Capacitance vs. Reverse Voltage

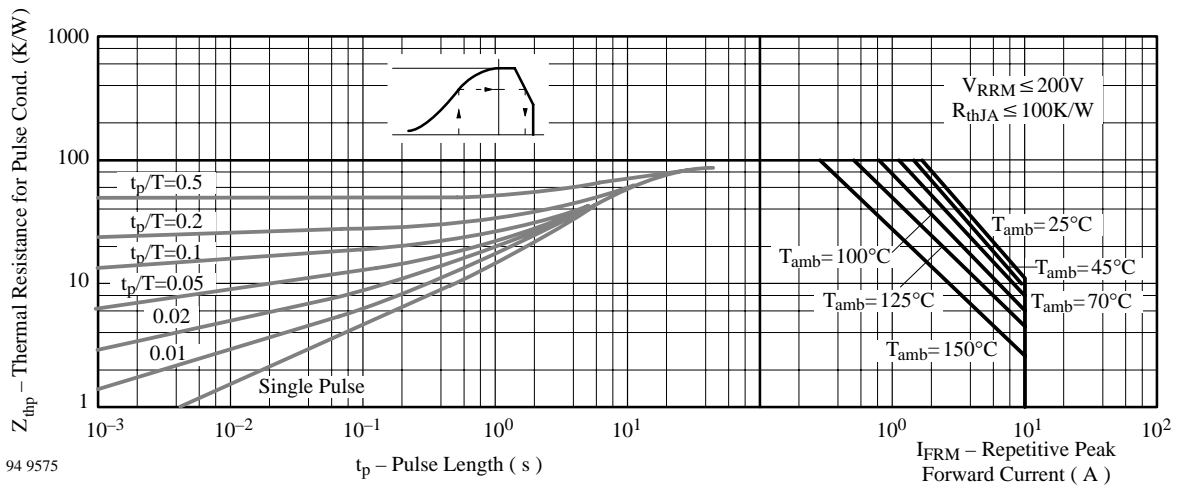
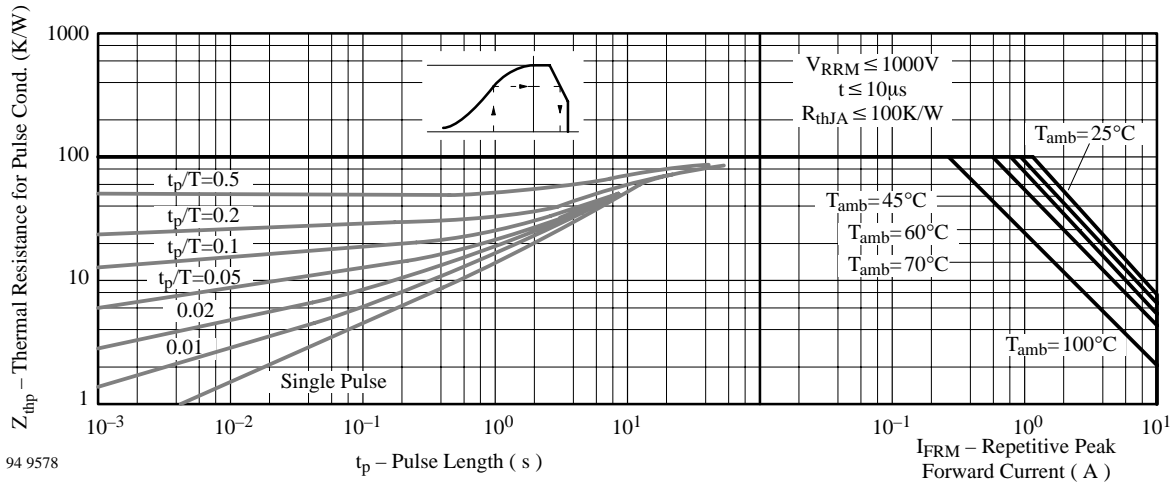


Figure 5. Thermal Response



94 9578

Figure 6. Thermal Response