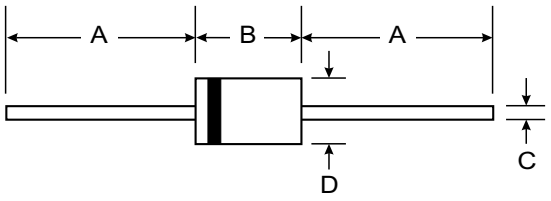
BYX82-BYX86

2.0A Axial Leaded Silicon Mesa Rectifiers

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=10ms, half sinewave		I_{FSM}	50	A
Repetitive peak forward current			I_{FRM}	10	A
Average forward current	$T_{amb} \leqq 45^\circ C$		I_{FAV}	2	A
i^2t–rating			i^2t	8	A^2s
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=1A		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°C		I_R		10	25	µA
Diode capacitance	V_R=4V, f=0.47MHz		C_D		20		pF
Reverse recovery time	I_F=0.5A, I_R=1A, i_R=0.25A		t_{rr}		2	4	µs
Reverse recovery charge	$I_F=I_R$=1A, di/dt=5A/µs		Q_{rr}		3	6	µC

Characteristics (T_j = 25°C unless otherwise specified)

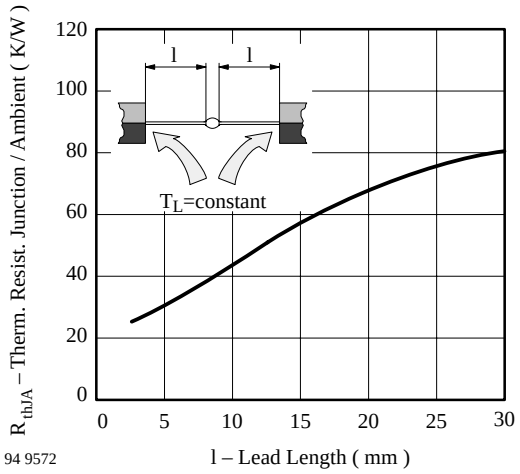


Figure 1. Max. Thermal Resistance vs. Lead Length

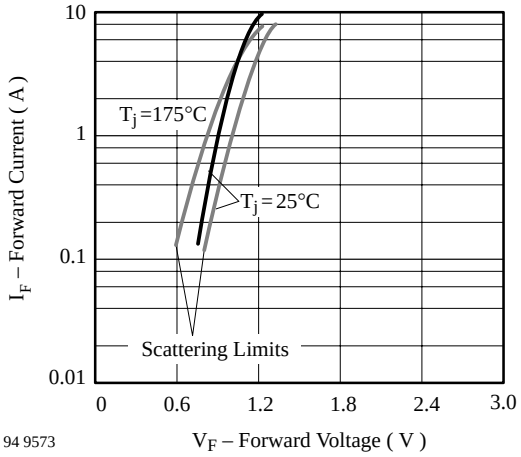


Figure 3. Forward Current vs. Forward Voltage

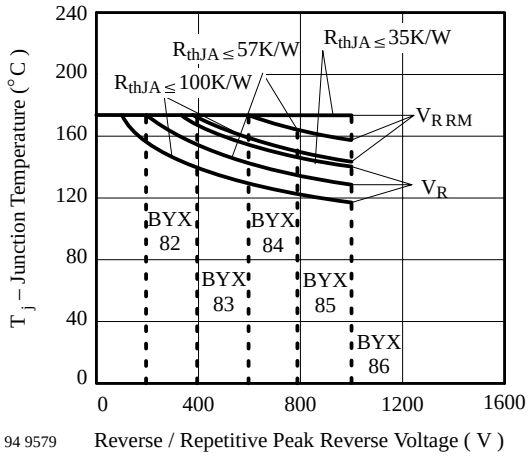


Figure 2. Junction Temperature vs. Reverse/Repetitive Peak Reverse Voltage

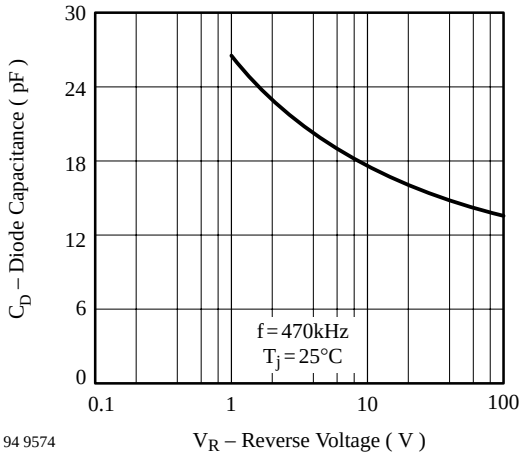


Figure 4. Typ. Diode Capacitance vs. Reverse Voltage

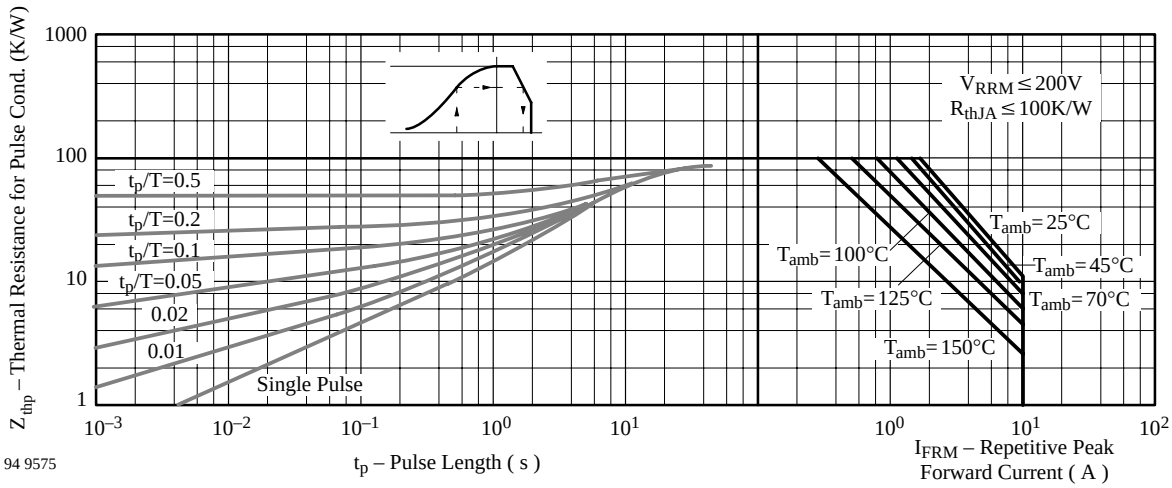


Figure 5. Thermal Response

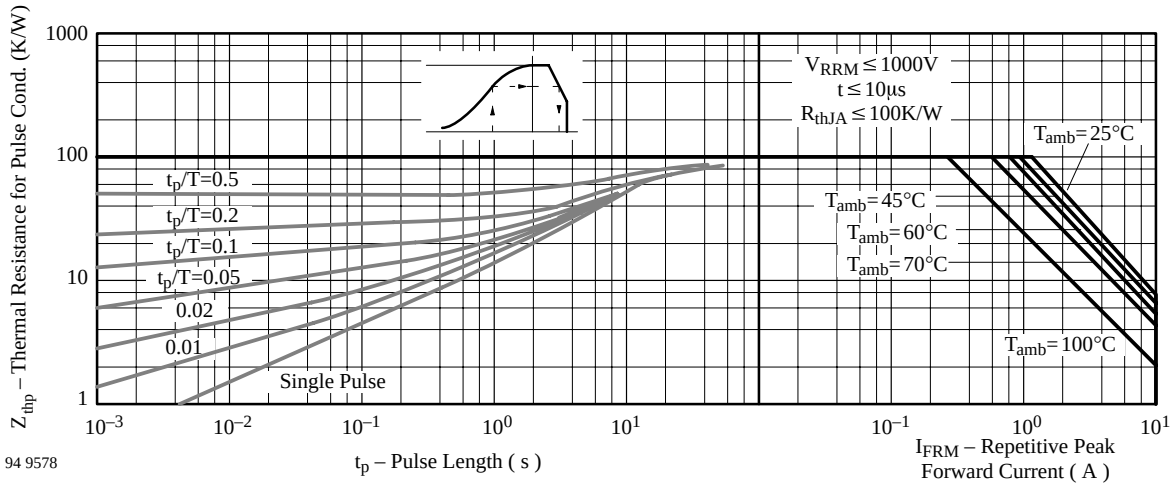


Figure 6. Thermal Response