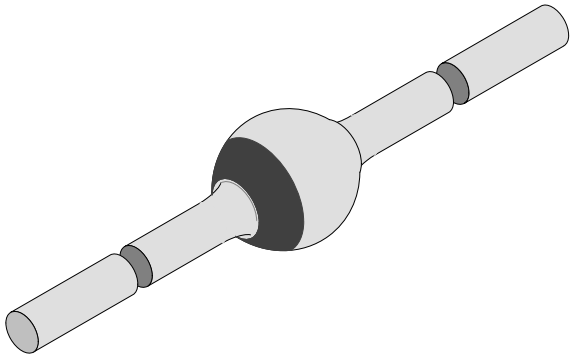
BYV56 Series

Fast Silicon Mesa Rectifiers

Features

- ✧ Glass passivated junction
- ✧ Hermetically sealed package
- ✧ Low reverse current
- ✧ Soft recovery characteristics



Applications

Very fast rectifiers and switches

Absolute Maximum Ratings

T_j = 25°C

Parameter	Test Conditions	Type	Symbol	Value	Unit
Reverse voltage =Repetitive peak reverse voltage		BYT56A	$V_R=V_{RRM}$	50	V
		BYT56B	$V_R=V_{RRM}$	100	V
		BYT56D	$V_R=V_{RRM}$	200	V
		BYT56G	$V_R=V_{RRM}$	400	V
		BYT56J	$V_R=V_{RRM}$	600	V
		BYT56K	$V_R=V_{RRM}$	800	V
		BYT56M	$V_R=V_{RRM}$	1000	V
Peak forward surge current	t_p=10ms, half sinewave		I_{FSM}	80	A
Average forward current	on PC board		I_{FAV}	1.5	A
	l=10mm, T_L=25˚C		I_{FAV}	3	A
Junction and storage temperature range			$T_j=T_{stg}$	–65...+175	˚C

Maximum Thermal Resistance

T_j = 25°C

Parameter	Test Conditions	Symbol	Value	Unit
Junction ambient	l=10mm, T_L=constant	R_{thJA}	25	K/W
	on PC board with spacing 37.5mm	R_{thJA}	70	K/W

Electrical Characteristics

T_j = 25°C

Parameter	Test Conditions	Type	Symbol	Min	Typ	Max	Unit
Forward voltage	I_F=3A		V_F			1.4	V
Reverse current	$V_R=V_{RRM}$		I_R			5	µA
	$V_R=V_{RRM}$, T_j=150˚C		I_R			150	µA
Reverse recovery time	I_F=0.5A, I_R=1A, i_R=0.25A		t_{rr}			100	ns

BYV56 Series

Fast Silicon Mesa Rectifiers

Characteristics (T_j = 25°C unless otherwise specified)

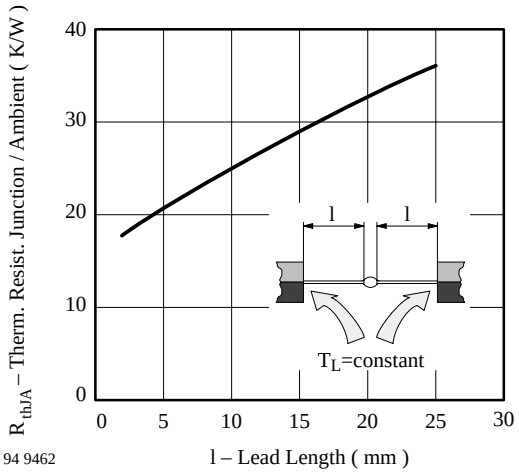


Figure 1. Max. Thermal Resistance vs. Lead Length

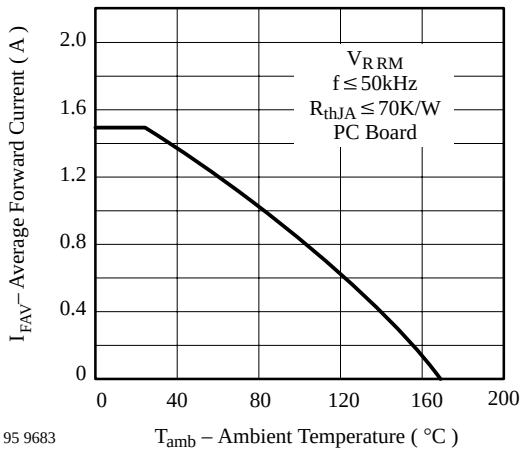


Figure 2. Max. Average Forward Current vs. Ambient Temperature

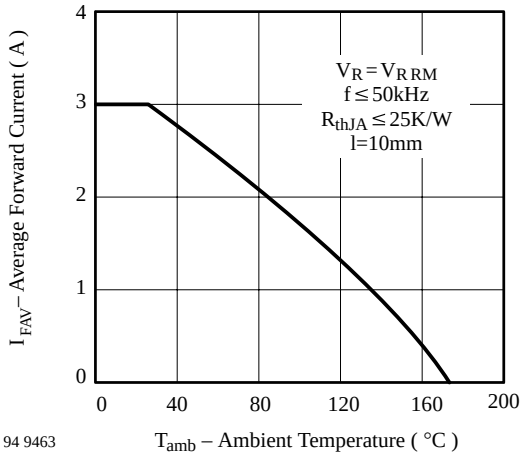


Figure 3. Max. Average Forward Current vs. Ambient Temperature

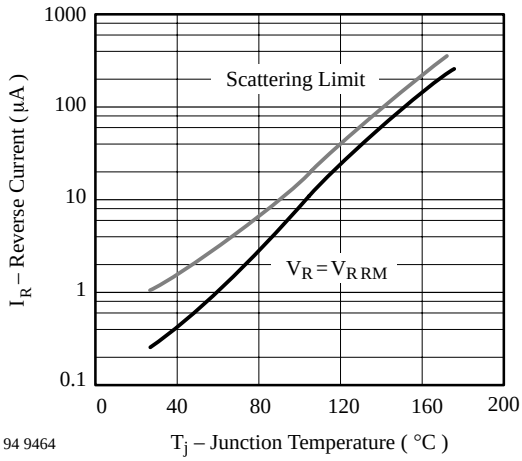


Figure 4. Reverse Current vs. Junction Temperature

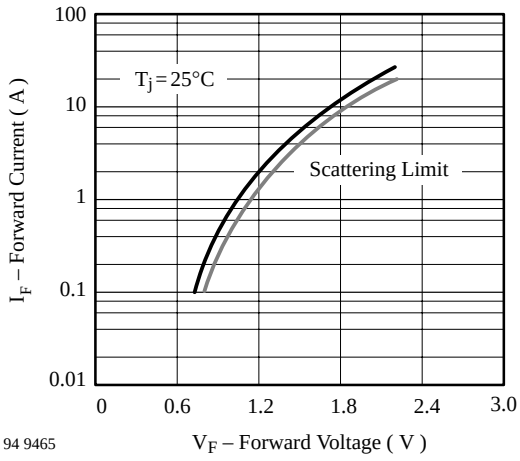


Figure 5. Forward Current vs. Forward Voltage

BYV56 Series

Fast Silicon Mesa Rectifiers

Dimensions in mm