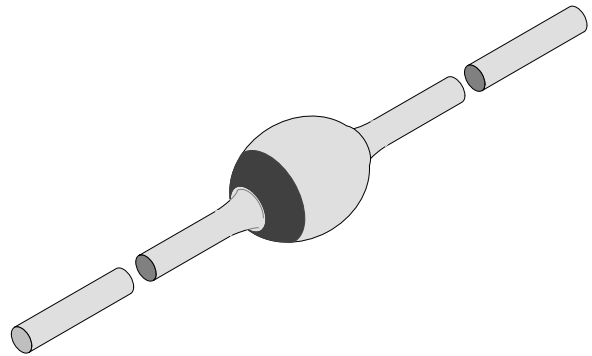


Features

- ✧ Miniature axial leaded
- ✧ Glass passivated
- ✧ Hermetically sealed glass envelope
- ✧ Low reverse current
- ✧ High reverse voltage



Applications

TV and monitor
SMPS
Electronic ballast

Absolute Maximum Ratings

$T_j = 25^\circ\text{C}$

Parameter	Test Conditions	Type	Symbol	Value	Unit
Reverse voltage =Repetitive peak reverse voltage		BYT42A	V_R = V_{RRM}	50	V
		BYT42B		100	V
		BYT42D		200	V
		BYT42G		400	V
		BYT42J		600	V
		BYT42K		800	V
		BYT42M		1000	V
Peak forward surge current	$t_p=8.3$ ms, half sinewave		I_{FSM}	30	A
Average forward current	Lead length $l = 10$ mm, $T_L = 25^\circ\text{C}$		I_{FAV}	1.25	A
Junction and storage temperature range			$T_j=T_{stg}$	-55...+175	$^\circ\text{C}$

Maximum Thermal Resistance

$T_j = 25^\circ\text{C}$

Parameter	Test Conditions	Symbol	Value	Unit
Junction ambient	Lead length $l = 10$ mm, $T_L = \text{constant}$	R_{thJA}	60	K/W
	on PC board with spacing 25mm	R_{thJA}	110	K/W

Electrical Characteristics

$T_j = 25^\circ\text{C}$

Parameter	Test Conditions	Type	Symbol	Min	Typ	Max	Unit
Forward voltage	$I_F = 1\text{A}$		V_F			1.4	V
Reverse current	$V_R = V_{RRM}$		I_R			5	μA
	$V_R = V_{RRM}, T_j = 150^\circ\text{C}$		I_R			150	μA
Reverse breakdown voltage	$I_R = 100\mu\text{A}$	BYT42A	$V_{(BR)R}$	50			V
		BYT42B	$V_{(BR)R}$	100			V
		BYT42D	$V_{(BR)R}$	200			V
		BYT42G	$V_{(BR)R}$	400			V
		BYT42J	$V_{(BR)R}$	600			V
		BYT42K	$V_{(BR)R}$	800			V
		BYT42M	$V_{(BR)R}$	1000			V
Reverse recovery time	$I_F = 0.5\text{A}, I_R = 1\text{A}, i_R = 0.25\text{A}$	BYT42A -BYT42J	t_{rr}			150	ns
		BYT42K -BYT42M	t_{rr}			200	ns

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

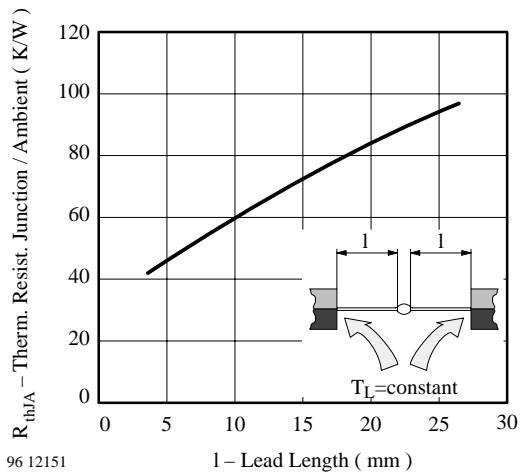


Figure 1. Max. Thermal Resistance vs. Lead Length

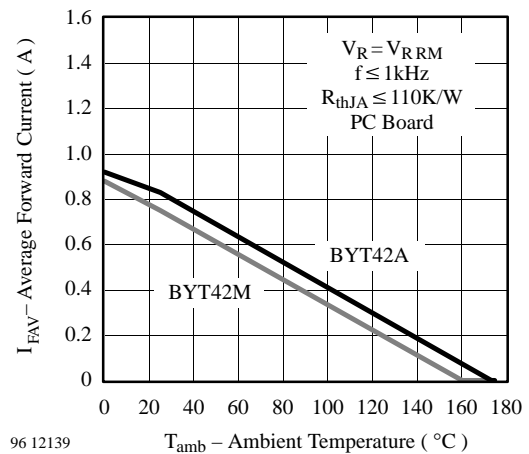


Figure 2. Max. Average Forward Current vs. Ambient Temperature

BYT42

Fast Soft Recovery Rectifier

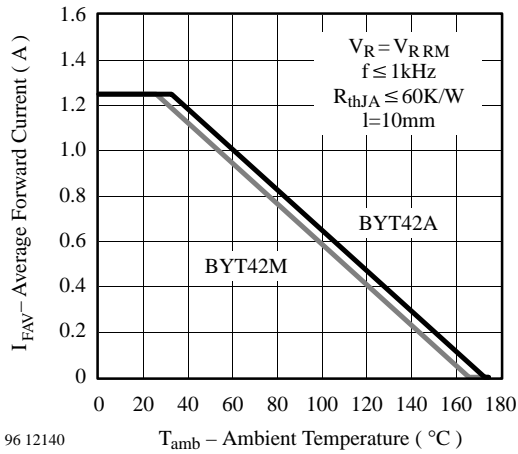


Figure 3. Max. Average Forward Current vs. Ambient Temperature

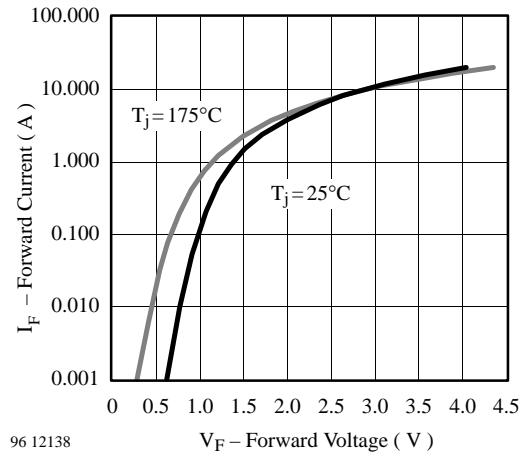


Figure 5. Max. Forward Current vs. Forward Voltage

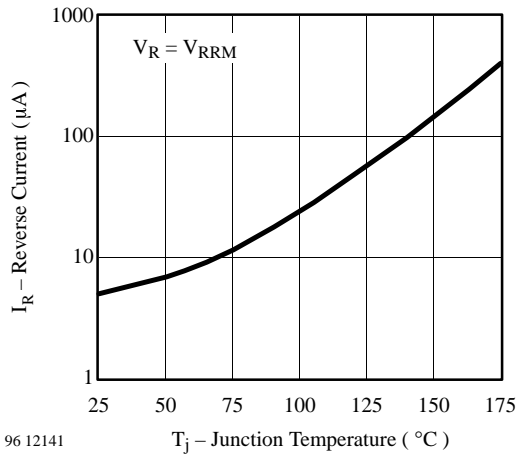


Figure 4. Max. Reverse Current vs. Junction Temperature

Dimensions in mm

