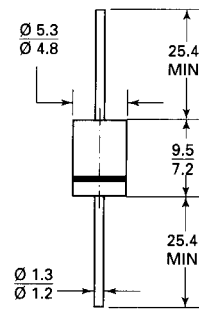


BY396...BY399

FAST SILICON RECTIFIERS

FEATURES

- * Low forward voltage
- * High current capability
- * Low leakage current
- * High surge capability
- * Low cost



VOLTAGE RANGE

100 to 800 Volts

CURRENT

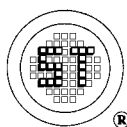
3.0 Amperes

Dimensions in mm

Absolute Maximum Ratings ($T_a = 25\text{ }^\circ\text{C}$)

	Symbol	Value	Unit	
Repetitive Peak Reverse Voltage	BY396	V_{RRM}	100	V
	BY397	V_{RRM}	200	V
	BY398	V_{RRM}	400	V
	BY399	V_{RRM}	800	V
Surge Forward Current, Half Cycle 50Hz, starting from $T_j = 25\text{ }^\circ\text{C}$	I_{FSM}	100	A	
Average Forward Current at $T_{amb} = 50\text{ }^\circ\text{C}$	I_{FAV}	3 ¹⁾	A	
Junction Temperature	T_j	175	$^\circ\text{C}$	
Ambient Operating Temperature Range	T_{amb}	-40 to + 175	$^\circ\text{C}$	
Storage Temperature Range	T_s	-40 to + 175	$^\circ\text{C}$	

¹⁾ Valid provided that leads are kept at ambient temperature at a distance of 8 mm from case.



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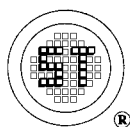
BY396...BY399

FAST SILICON RECTIFIERS

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

	Symbol	Min.	Typ.	Max.	Unit
Forward Voltage at $I_F = 3\text{ A}$	V_F	-	-	1.3	V
Leakage Current at V_{RRM}	I_R	-	-	10	μA
Forward Recovery Time at $I_F = 100\text{ mA}$	t_{fr}	-	-	1.0	μs
Reverse Recovery Time from $I_F = 10\text{ mA}$ through $I_R = 10\text{ mA}$ to $I_R = 1\text{ mA}$	t_{fr}	-	-	0.5	μs
Thermal Resistance Junction to Ambient Air	R_{thA}	-	-	30 ¹⁾	K/W

¹⁾ Valid provided that leads are kept at ambient temperature at a distance of 8 mm from case.



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