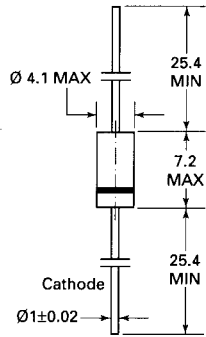


BY296...BY299

FAST SILICON RECTIFIERS

FEATURES

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



VOLTAGE RANCE

100 to 800 Volts

CURRENT

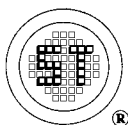
2.0 Amperes

Dimensions in mm

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

	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	BY296 V_{RRM}	100	V
	BY297 V_{RRM}	200	V
	BY298 V_{RRM}	400	V
	BY299 V_{RRM}	800	V
Nominal Current at Halfe Wave Rectificatin with Resistive Load at $T_{amb} = 50\text{ }^{\circ}\text{C}$	I_{FAV}	2 ¹⁾	A
Surge Forward Current, Half Cycle 50Hz, starting from $T_j = 25\text{ }^{\circ}\text{C}$	I_{FSM}	70	A
Repetitive Peak Forward Current, $\Theta < 40\text{ }^{\circ}$, $f > 15\text{Hz}$, $T_{amb} = 25\text{ }^{\circ}\text{C}$	I_{FRM}	10 ¹⁾	A
Junction Temperature	T_j	150	$^{\circ}\text{C}$
Ambient Operating Temperature Range	T_{amb}	-40 + 150	$^{\circ}\text{C}$
Strage Temperature Range	T_s	-40 + 150	$^{\circ}\text{C}$

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



SEMTECH ELECTRONICS LTD.
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BY296...BY299
FAST SILICON RECTIFIERS

Characteristics

	Symbol	Min.	Typ.	Max.	Unit
Forward Voltage at $I_F = 3\text{ A}$, $T_J = 25\text{ }^\circ\text{C}$	V_F	-	-	1.3	V
Leakage Current at V_{RRM} , $T_J = 25\text{ }^\circ\text{C}$	I_R	-	-	10	μA
Forward Recovery Time at $I_F = 100\text{ mA}$	t_{fr}	-	-	1	μs
Reverse Recovery Time from $I_F = 10\text{ mA}$ through $I_R = 10\text{ mA}$ to $I_R = 1\text{ mA}$	t_{rr}	-	-	0.5	μs
Thermal Resistance Junction to Ambient Air	R_{thA}	-	-	35	K/W
¹⁾ Valid provided that leads are kept at ambient temperature at a distance of 8 mm from case.					

