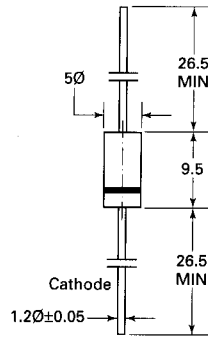


BY251...BY255 PLASTIC SILICON RECTIFIERS

FEATURES

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



VOLTAGE RANGE

200 to 1300 Volts

CURRENT

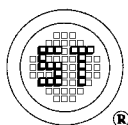
3.0 Amperes

Dimensions in mm

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

	Symbol	Value	Unit	
Repetitive Peak Reverse Voltage	BY251	V_{RRM}	200	V
	BY252	V_{RRM}	400	V
	BY253	V_{RRM}	600	V
	BY254	V_{RRM}	800	V
	BY255	V_{RRM}	1300	V
Nominal Current at Half Wave Rectification with Resistive Load at $T_{amb} = 25\text{ }^\circ\text{C}$	I_{FAV}	3 ¹⁾	A	
Repetitive Peak Forward Current, $\theta < 40\text{ }^\circ$, $f > 15\text{Hz}$, $T_{amb} = 25\text{ }^\circ\text{C}$	I_{FRM}	20 ¹⁾	A	
Surge Forward Current, Half Cycle 50Hz, starting from $T_j = 25\text{ }^\circ\text{C}$	I_{FSM}	100	A	
Junction Temperature	T_j	150	$^\circ\text{C}$	
Ambient Operating Temperature Range	T_{amb}	-40 + 150	$^\circ\text{C}$	
Storage 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.



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BY251...BY255

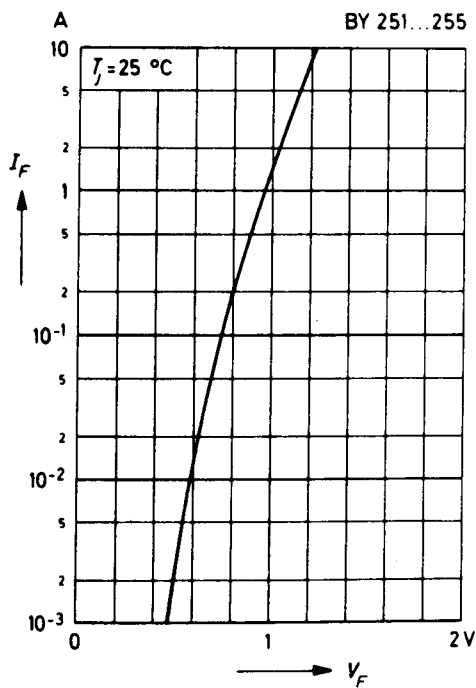
PLASTIC SILICON RECTIFIERS

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

	Symbol	Min.	Typ.	Max.	Unit
Forward Voltage at $I_F = 3\text{ A}$	V_F	-	-	1.0	V
Leakage Current at V_{RRM}	I_R	-	-	20	μA
Thermal Resistance Junction to Ambient Air	R_{thA}	-	-	30 ¹⁾	K/W

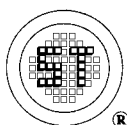
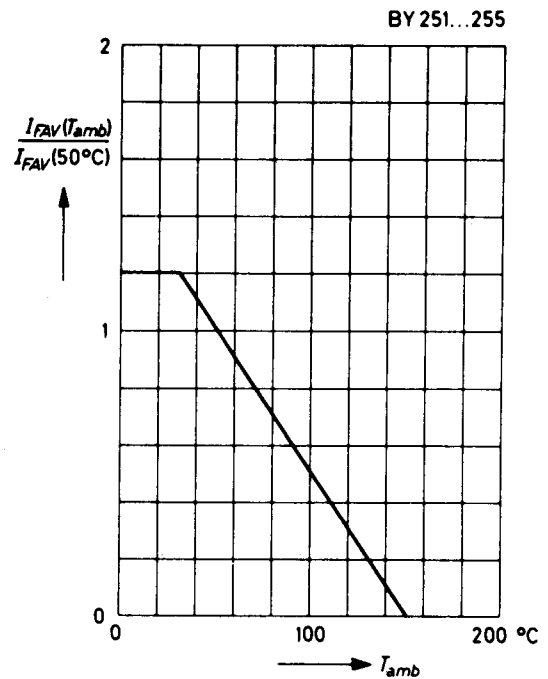
¹⁾ Valid provided that leads are kept at ambient temperature at a distance of 8 mm from case.

Forward characteristic



Admissible rectified current versus ambient temperature

Valid provided that leads are kept at ambient temperature at a distance of 10 mm from case.



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