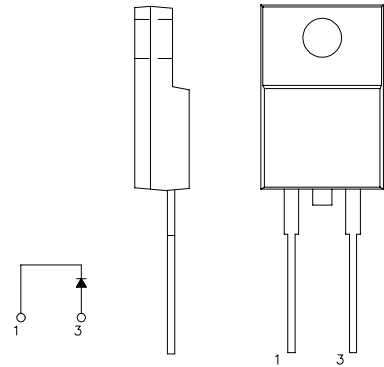


# FRD Type : FSF10A40

## OUTLINE DRAWING

### FEATURES

- \* Fully Molded Isolation Case
- \* Ultra – Fast Recovery
- \* Low Forward Voltage Drop
- \* Low Power Loss, High Efficiency
- \* High Surge Capability
- \* 200 Volts thru 600 Volts Types Available



### Maximum Ratings

Approx Net Weight:1.7g

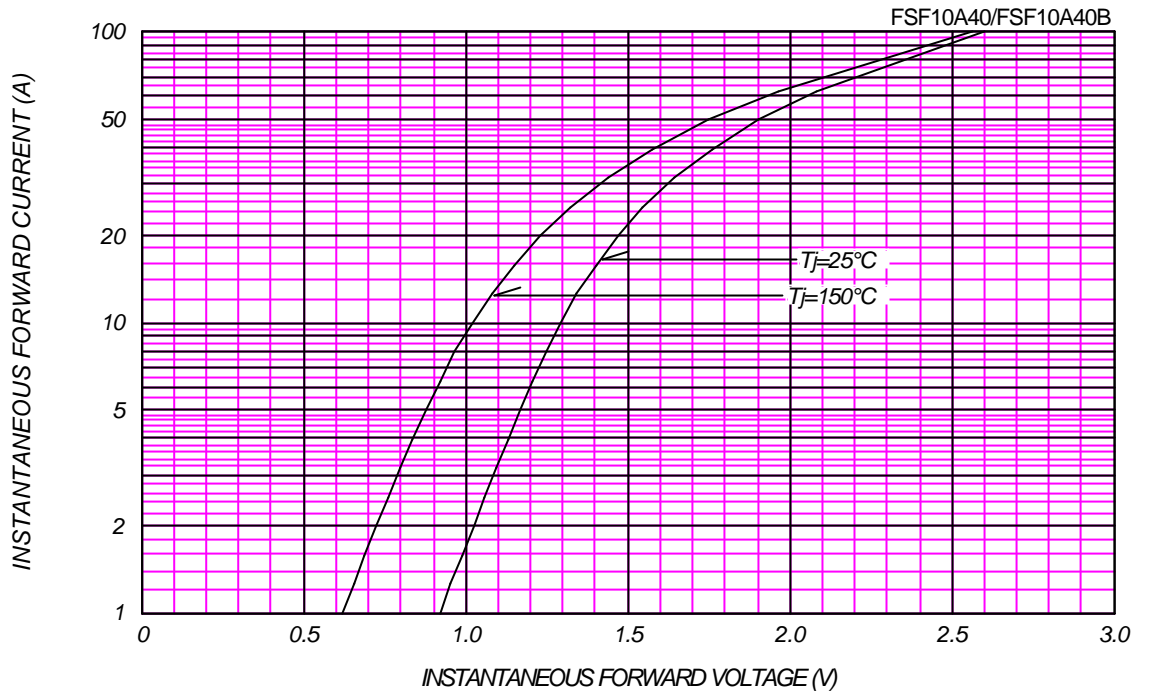
Rating	Symbol	FSF10A40		Unit
Repetitive Peak Reverse Voltage	$V_{RRM}$	400		V
Non-repetitive Peak Reverse Voltage	$V_{RSM}$	440		
Average Rectified Output Current	$I_O$	10	$T_c=95^\circ\text{C}$ 50 Hz Half Sine Wave Resistive Load	A
RMS Forward Current	$I_{F(RMS)}$	15.7		A
Surge Forward Current	$I_{FSM}$	120	50 Hz Half Sine Wave, 1cycle Non-repetitive	A
Operating Junction Temperature Range	$T_{jw}$	- 40 to + 150		$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	- 40 to + 150		$^\circ\text{C}$
Mounting torque		0.5	Recommended value	N.m

### Electrical • Thermal Characteristics

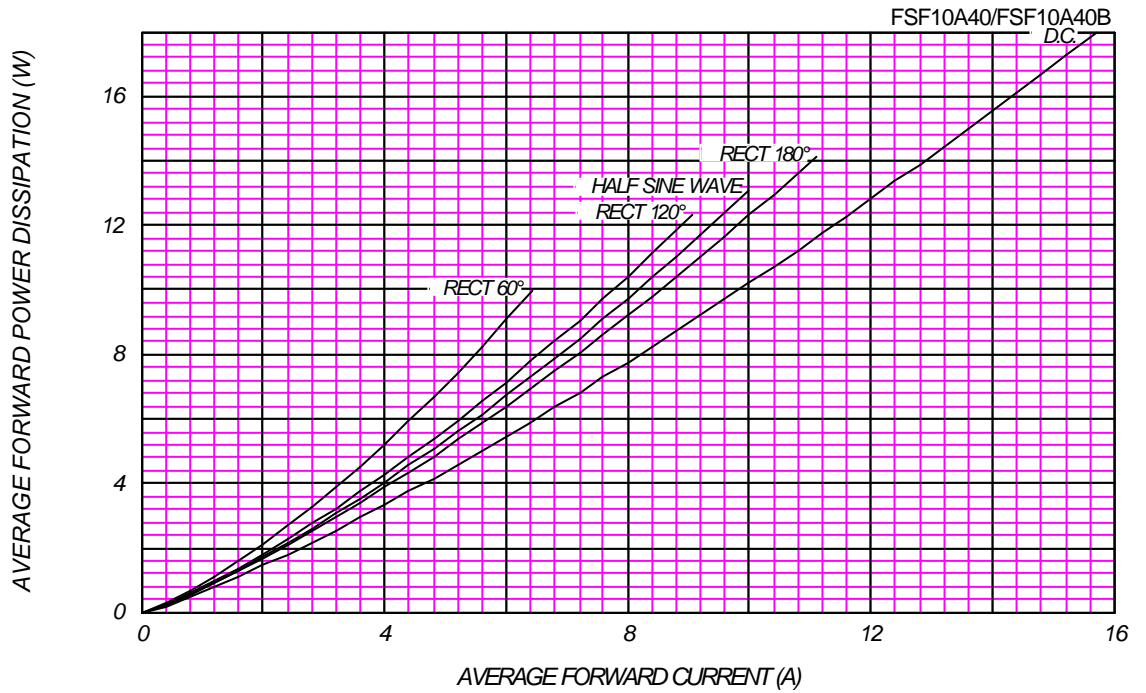
Characteristics	Symbol	Conditions	Min.	Typ.	Max.	Unit
Peak Reverse Current	$I_{RM}$	$T_j = 25^\circ\text{C}$ , $V_{RM} = V_{RRM}$	-	-	30	$\mu\text{A}$
Peak Forward Voltage	$V_{FM}$	$T_j = 25^\circ\text{C}$ , $I_{FM} = 10\text{A}$	-	-	1.30	V
Reverse Recovery Time	$t_{rr}$	$I_{FM} = 10\text{A}$ , $-di/dt = 50\text{ A}/\mu\text{s}$ , $T_a = 25^\circ\text{C}$	-	-	45	ns
Thermal Resistance	$R_{th(j-c)}$	Junction to Case	-	-	4	$^\circ\text{C}/\text{W}$
	$R_{th(c-f)}$	Case to Fin	-	-	1.5	



FORWARD CURRENT VS. VOLTAGE

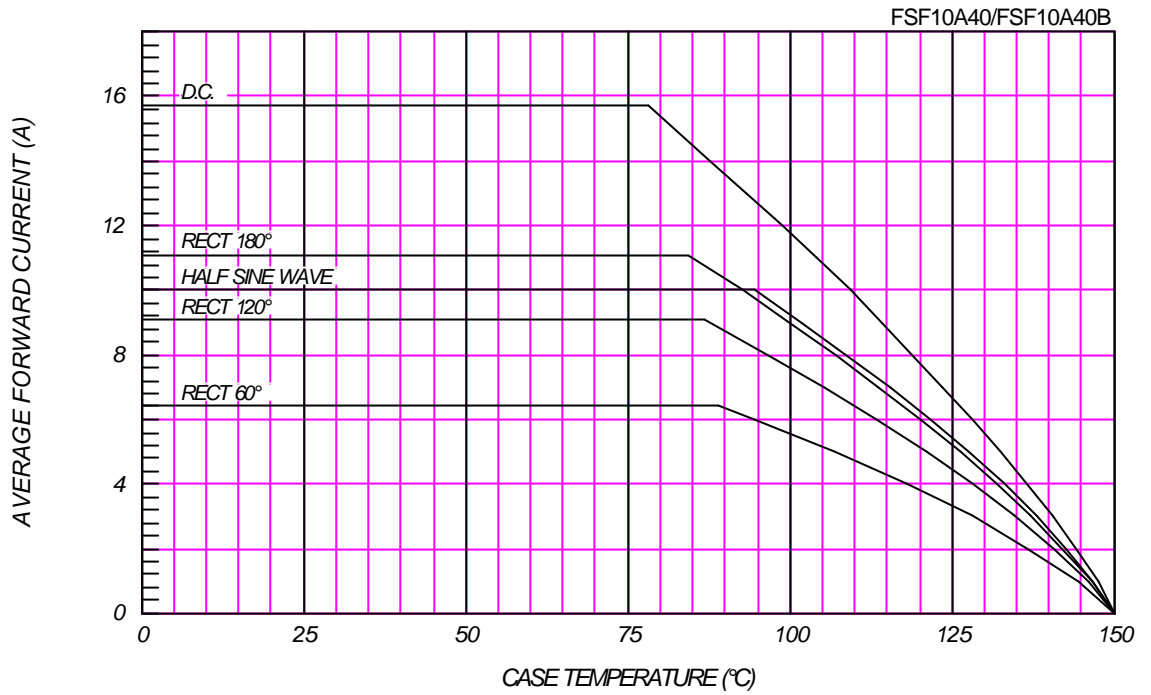


AVERAGE FORWARD POWER DISSIPATION





### AVERAGE FORWARD CURRENT VS. CASE TEMPERATURE



### SURGE CURRENT RATINGS

$f=50\text{Hz}$ , Half Sine Wave, Non-Repetitive, No Load

