

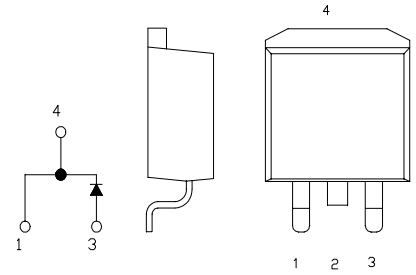
# FRD Type : TSF05A20

## OUTLINE DRAWING

For Power Factor Improvement High Frequency Rectification

### FEATURES

- \* Fast Recovery
- \* Low Forward Voltage Drop
- \* Low Power Loss, High Efficiency
- \* High Surge Capability



### Maximum Ratings

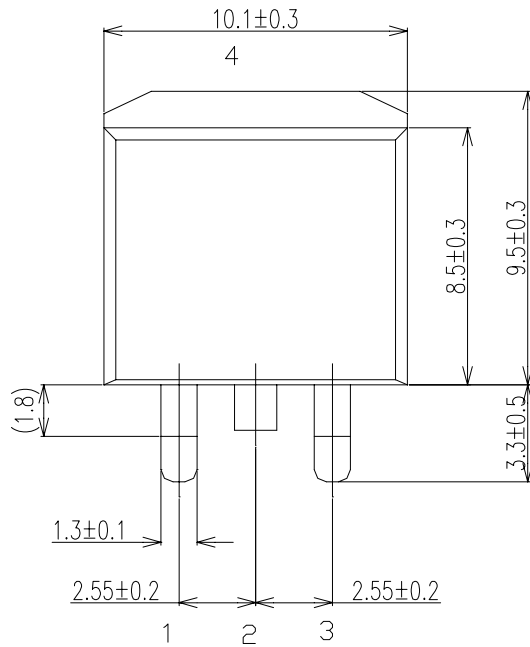
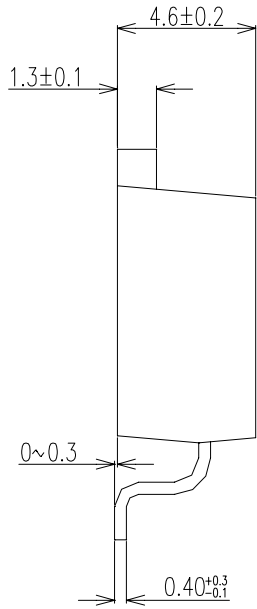
Approx Net Weight:1.45g

Rating	Symbol	TSF05A20		Unit
Repetitive Peak Reverse Voltage	$V_{RRM}$	200		V
Average Rectified Output Current	$I_O$	5	$T_c=122^\circ\text{C}$ 50 Hz Half Sine Wave Resistive Load	A
RMS Forward Current	$I_{F(RMS)}$	7.85		A
Surge Forward Current	$I_{FSM}$	80	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		$^\circ\text{C}$

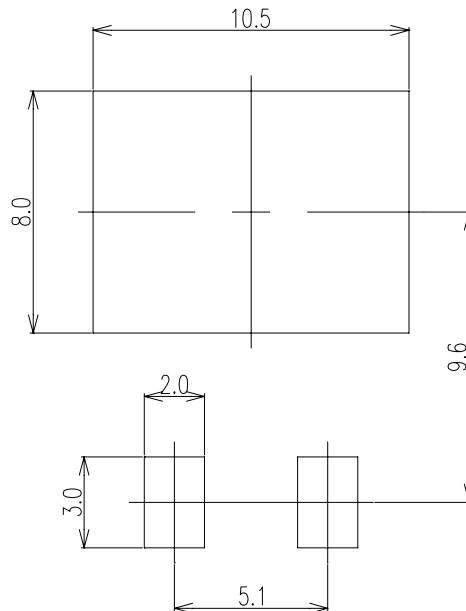
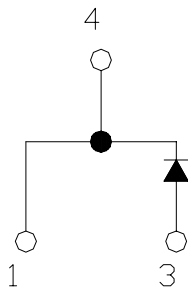
### Electrical • Thermal Characteristics

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	$V_{FM}$	$T_j= 25^\circ\text{C}, I_{FM}= 5\text{A}$	-	-	0.98	V
Reverse Recovery Time	$t_{rr}$	$I_{FM}= 5\text{A},$ $-di/dt= 50 \text{ A}/\mu\text{s}, T_a= 25^\circ\text{C}$	-	-	35	ns
Thermal Resistance	$R_{th(j-c)}$	Junction to Case	-	-	5	$^\circ\text{C}/\text{W}$

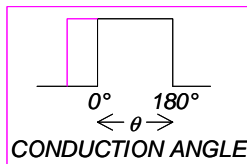
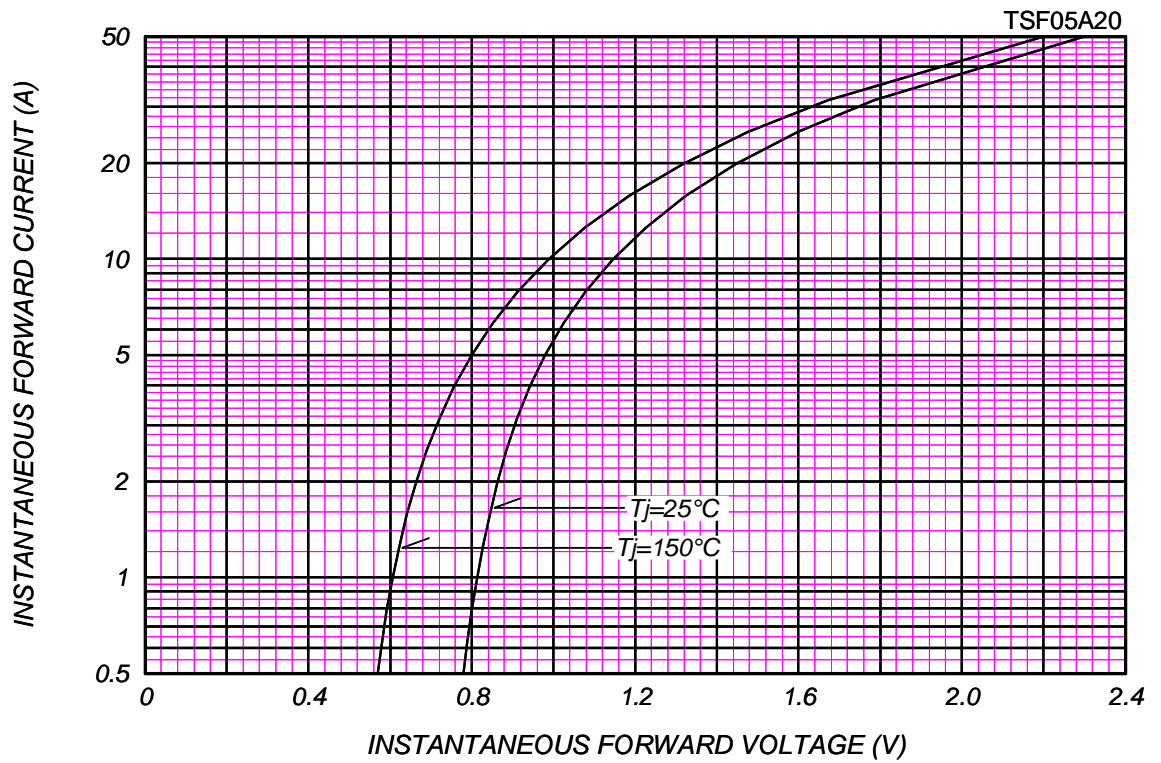
TSF\_ OUTLINE DRAWING (Dimensions in mm)



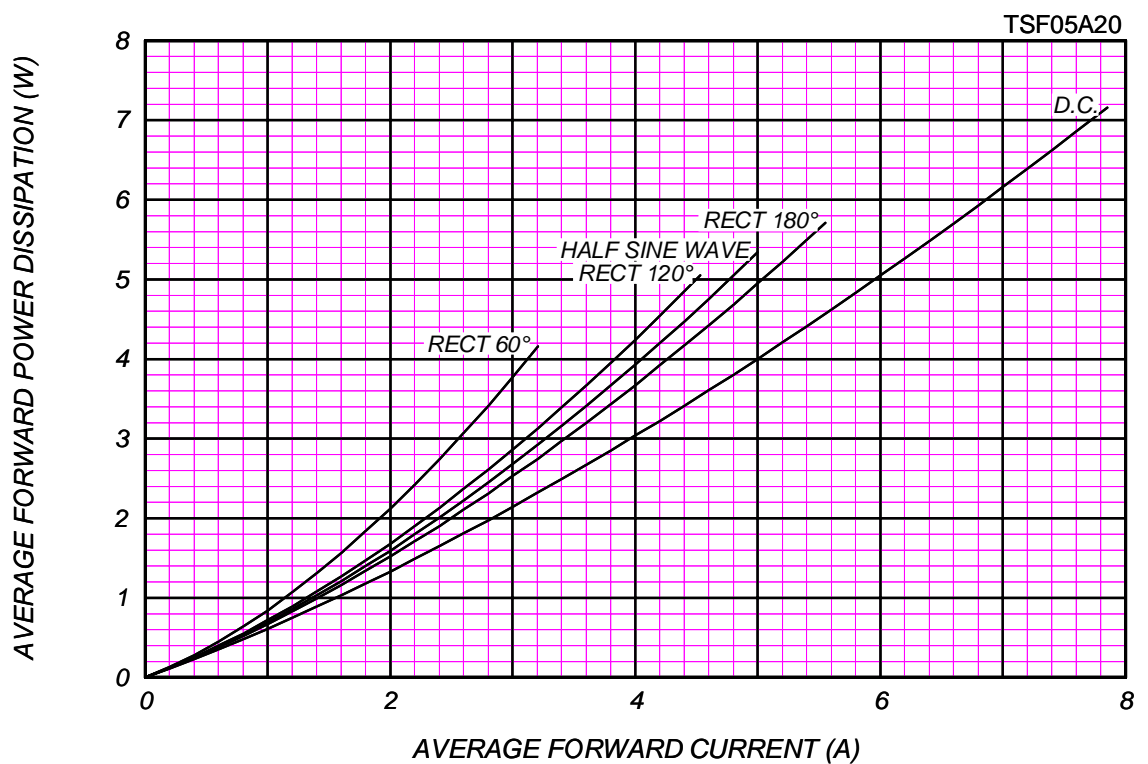
SOLDERING PAD

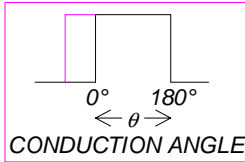


### FORWARD CURRENT VS. VOLTAGE

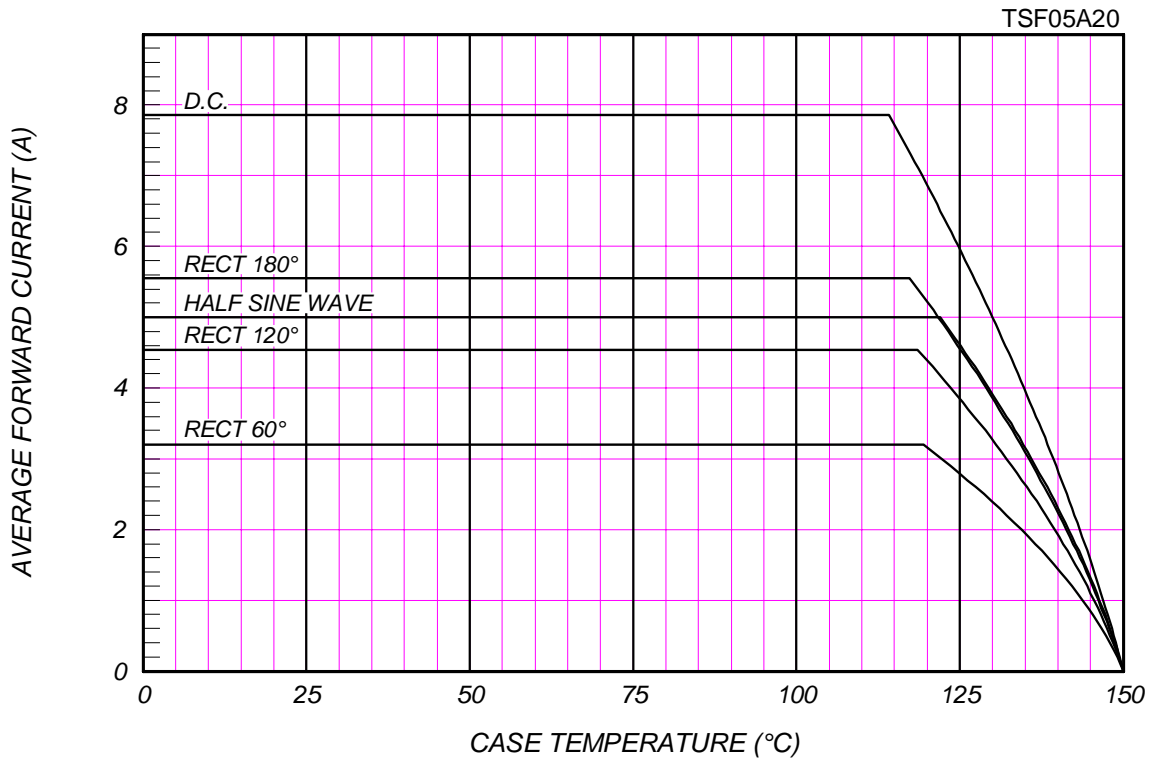


### AVERAGE FORWARD POWER DISSIPATION





### AVERAGE FORWARD CURRENT VS. CASE TEMPERATURE



### SURGE CURRENT RATINGS

f=50Hz, Half Sine Wave, Non-Repetitive, No Load

