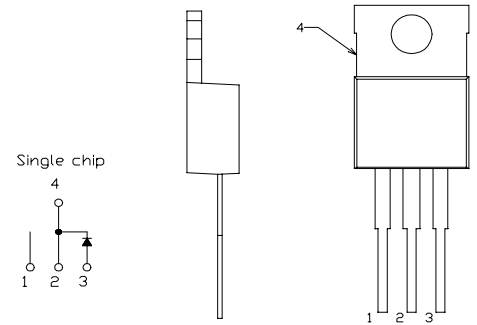


# FRD Type : GSF05A40B

## OUTLINE DRAWING

### FEATURES

- \* Similar to TO-220AB 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

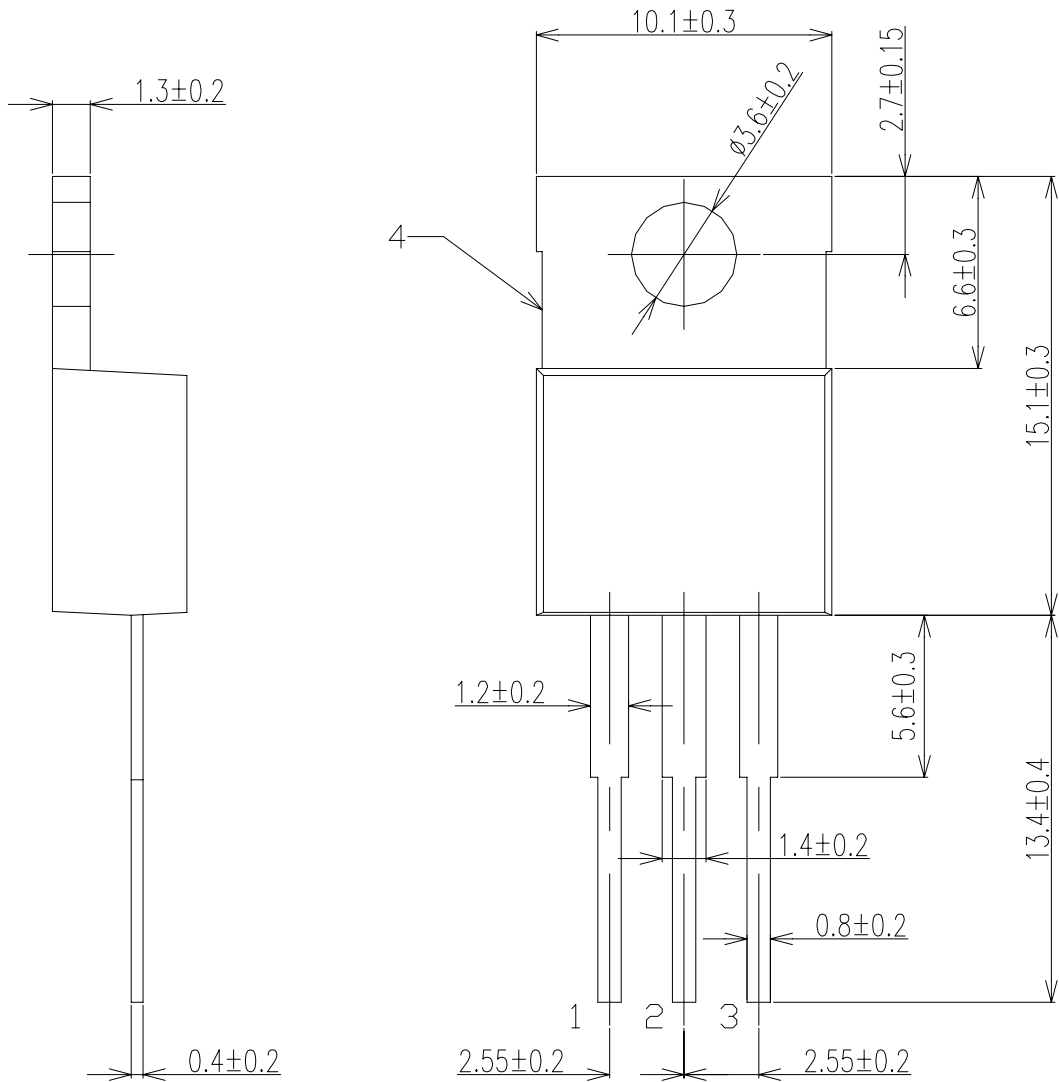
Approx Net Weight:1.9g

Rating	Symbol	GSF05A40B			Unit
Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	400			V
Non-repetitive Peak Reverse Voltage	V <sub>RSM</sub>	440			
Average Rectified Output Current	I <sub>O</sub>	5	Tc=118℃	50 Hz Half Sine Wave Resistive Load	A
RMS Forward Current	I <sub>F(RMS)</sub>	7.85			A
Surge Forward Current	I <sub>FSM</sub>	80	50 Hz Half Sine Wave,1cycle Non-repetitive		A
Operating JunctionTemperature Range	T <sub>jw</sub>	- 40 to + 150			℃
Storage Temperature Range	T <sub>stg</sub>	- 40 to + 150			℃
Mounting torque		0.5	Recommended value		N.m

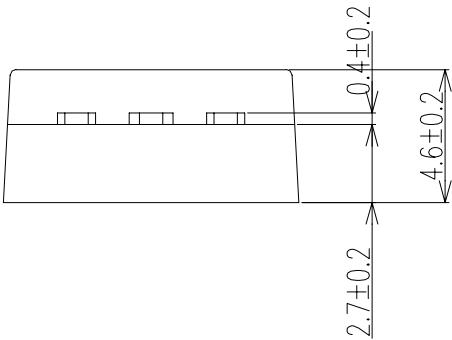
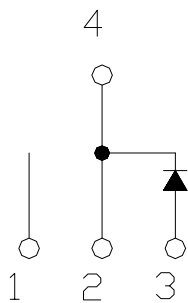
### Electrical • Thermal Characteristics

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	$V_{FM}$	$T_j = 25^{\circ}\text{C}$ , $I_{FM} = 5\text{A}$	-	-	1.25	V
Reverse Recovery Time	$t_{rr}$	$I_{FM} = 5\text{A}$ , $-di/dt = 50\text{ A}/\mu\text{s}$ , $T_a = 25^{\circ}\text{C}$	-	-	45	ns
Thermal Resistance	$R_{th(j-c)}$	Junction to Case	-	-	5	$^{\circ}\text{C}/\text{W}$

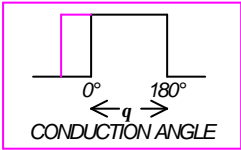
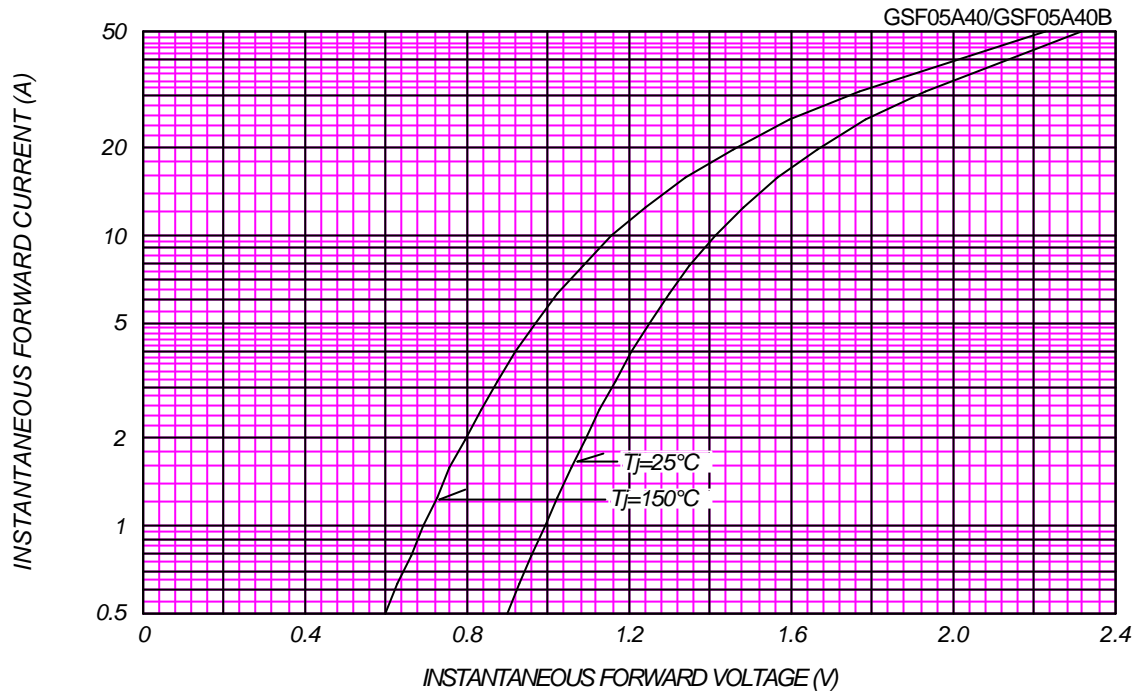
GSF\_B\_ OUTLINE DRAWING (Dimensions in mm)



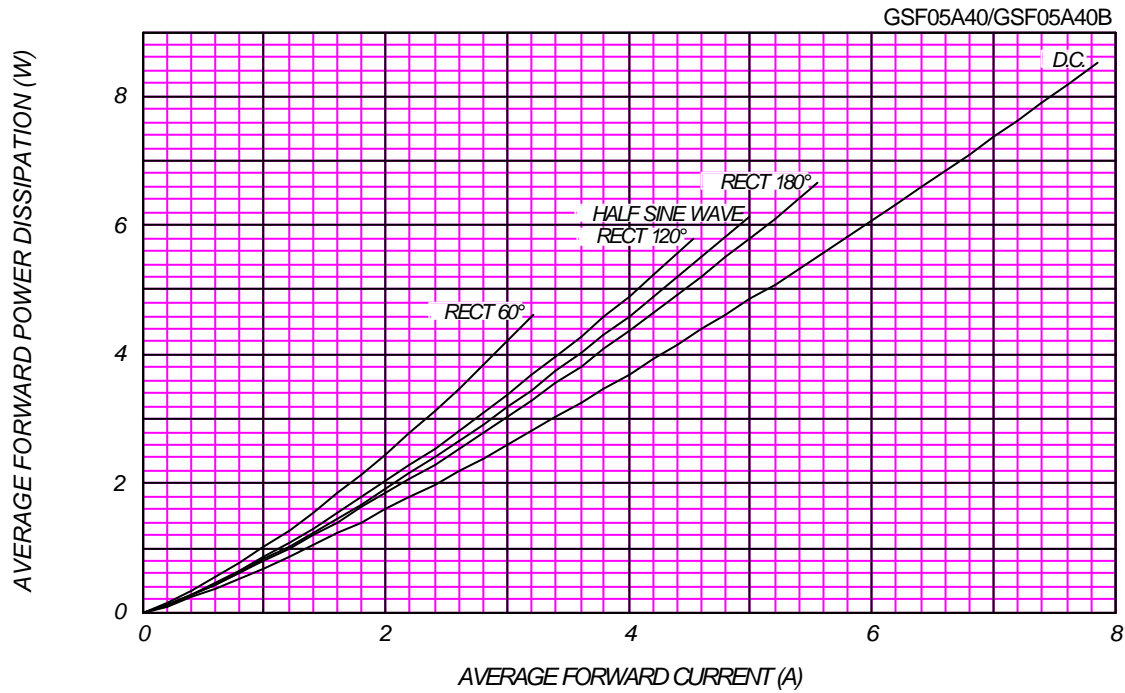
Single chip

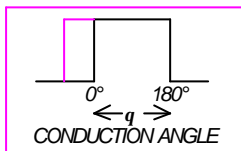


FORWARD CURRENT VS. VOLTAGE

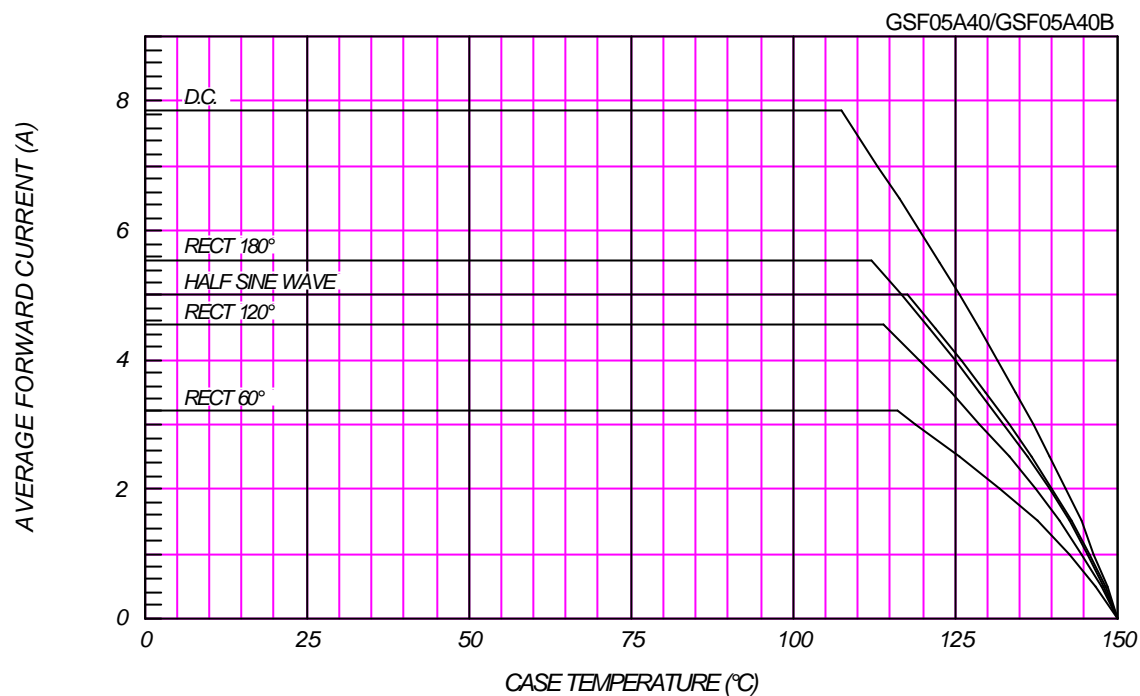


AVERAGE FORWARD POWER DISSIPATION





AVERAGE FORWARD CURRENT VS. CASE TEMPERATURE



SURGE CURRENT RATINGS

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

