

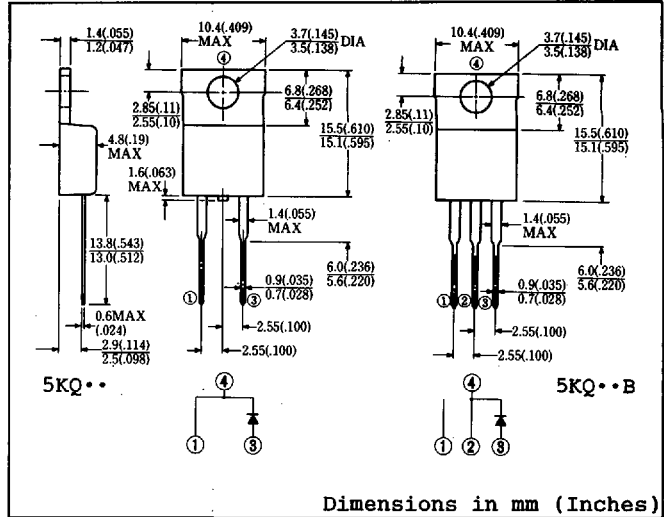
# SCHOTTKY BARRIER DIODE

5.5A/90~100V

5KQ90 F5KQ90 5KQ100 F5KQ100  
5KQ90B F5KQ90B 5KQ100B F5KQ100B

## FEATURES

- Similar to TO-220AC and TO-220AB Case
- Fully Molded Isolation Case (F-Type)
- Low Forward Voltage Drop
- Low Power Loss, High Efficiency
- High Surge Capability
- 20 Volts thru 100 Volts Types Available



Approx. Net Weight: 1.85 Grams 1.9 Grams

## MAXIMUM RATINGS

Voltage Rating	TYPE	5KQ90	F5KQ90	5KQ100	F5KQ100	Unit
	Symbol	5KQ90B	F5KQ90B	5KQ100B	F5KQ100B	
Repetitive Peak Reverse Voltage	$V_{RRM}$	90		100		V
Non-Repetitive Peak Reverse Voltage	$V_{RSM}$	---		---		V
Electrical Rating	Symbol	Condition			Rating	Unit
Average Rectified Output Current	$I_o$	180° rectangular wave conduction $T_C = 99^\circ\text{C}$			5.5	A
		180° sinusoidal wave conduction $T_C = 103^\circ\text{C}$			5.0	
RMS Forward Current	$I_{F(RMS)}$				7.9	A
Peak One-cycle Forward Surge Current	$I_{FSM}$	50Hz half sine wave, non-repetitive			120	A
Operating Junction Temperature Range	$T_{jw}$				-40 to 125	°C
Storage Temperature Range	$T_{stg}$				-40 to 125	°C
Mounting Torque	$F_{tor}$	Recommended torque			0.5 (5.1)	N·m (kgf·cm)

## ELECTRICAL & THERMAL CHARACTERISTICS

Characteristics	Symbol	Test Condition	Max.	Unit
Peak Forward Voltage	$V_{FM}$	$I_{FM} = 5A$ $T_j = 25^\circ\text{C}$	0.85	V
Peak Reverse Current	$I_{RM}$	$V_{RM} = V_{RRM}$ $T_j = 25^\circ\text{C}$	1.0	mA
Thermal Resistance	$R_{th(j-c)}$	Junction to Case	5.0	°C/W
	$R_{th(c-f)}$	Case to Fin for F5KQ Type	1.5	

5KQ90 F5KQ90 5KQ100 F5KQ100  
5KQ90B F5KQ90B 5KQ100B F5KQ100B

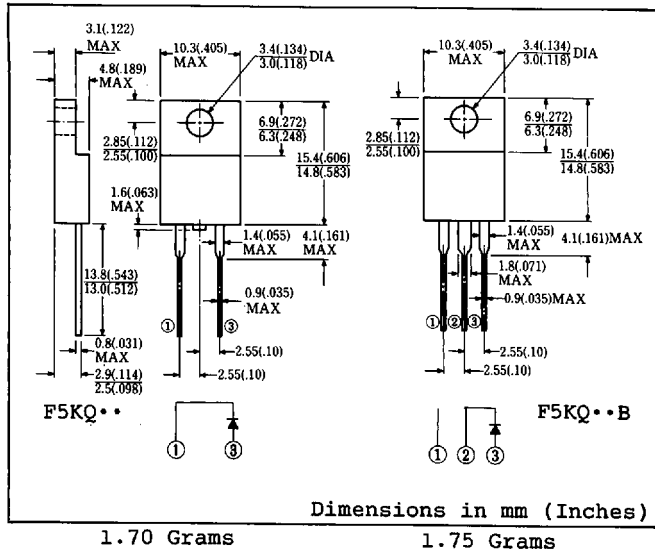


FIG.1-FORWARD VOLTAGE VS. FORWARD CURRENT

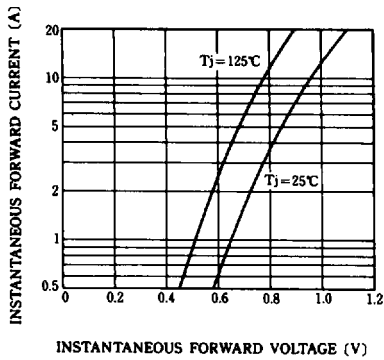


FIG.2-PEAK REVERSE CURRENT VS. PEAK REVERSE VOLTAGE

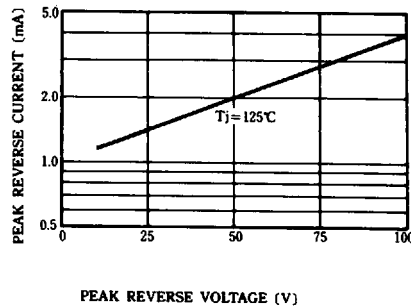


FIG.3-AVERAGE FORWARD CURRENT VS. CASE TEMPERATURE

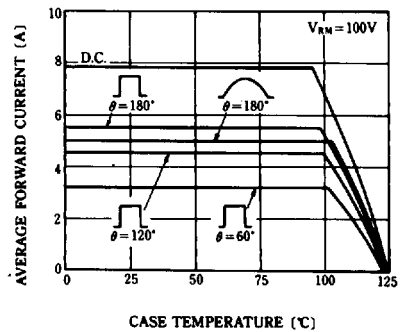


FIG.4-SURGE CURRENT RATNGS

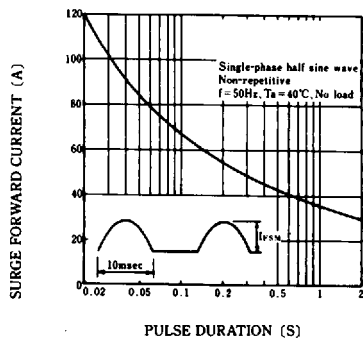


FIG.5-JUNCTION CAPACITANCE VS. REVERSE VOLTAGE

