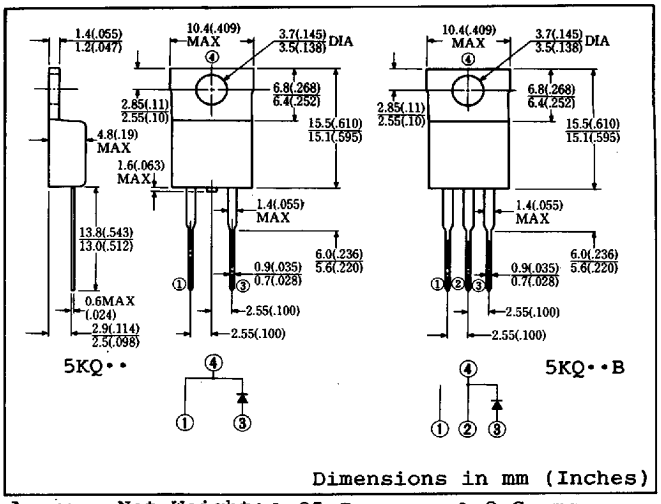
SCHOTTKY BARRIER DIODE

5.5A/30～40V

5KQ30 F5KQ30 5KQ40 F5KQ40
5KQ30B F5KQ30B 5KQ40B F5KQ40B

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

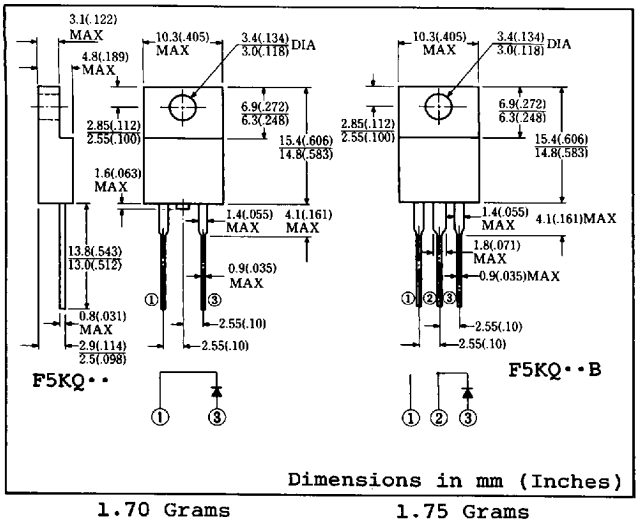
Voltage Rating	TYPE / Symbol	◆5KQ30 ◆F5KQ30 ◆5KQ30B ◆F5KQ30B	5KQ40 F5KQ40 5KQ40B F5KQ40B	Unit
Repetitive Peak Reverse Voltage	V_{RRM}	30	40	V
Non-Repetitive Peak Reverse Voltage	V_{RSM}	35	45	V

Electrical Rating	Symbol	Condition	Rating	Unit
Average Rectified Output Current	I_O	180° rectangular wave conduction T_C = 100°C	5.5	A
		180° sinusoidal wave conduction T_C = 105°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°C	0.55	V
Peak Reverse Current	I_{RM}	V_{RM} = VRRM T_j = 25°C	5.0	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	

◆For spare parts only



1.70 Grams 1.75 Grams

FIG.1-FORWARD VOLTAGE VS. FORWARD CURRENT

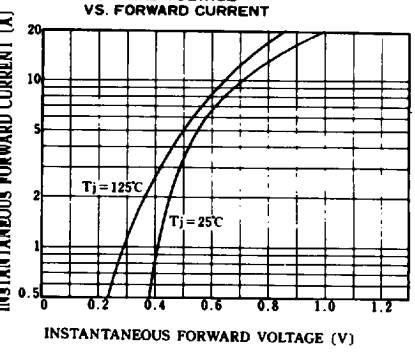


FIG.2-PEAK REVERSE CURRENT VS. PEAK REVERSE VOLTAGE

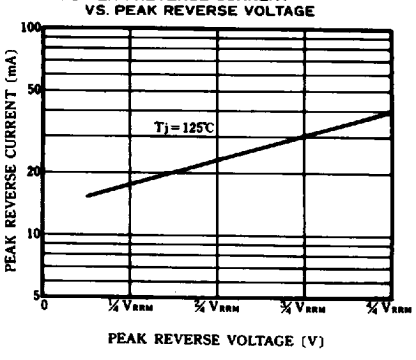


FIG.3-AVERAGE FORWARD CURRENT VS. CASE TEMPERATURE

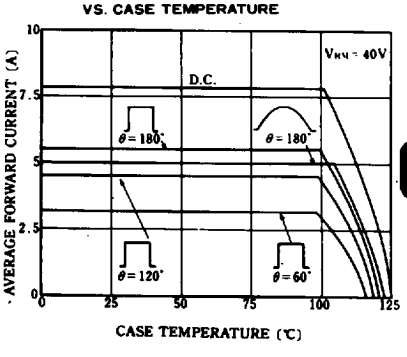


FIG.4-SURGE CURRENT RATINGS

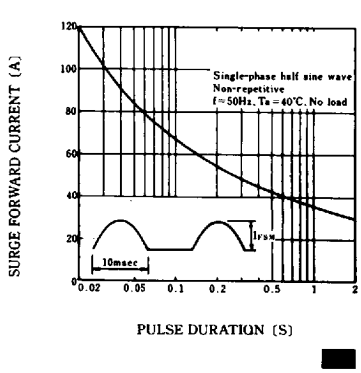


FIG.5-JUNCTION CAPACITANCE VS. REVERSE VOLTAGE