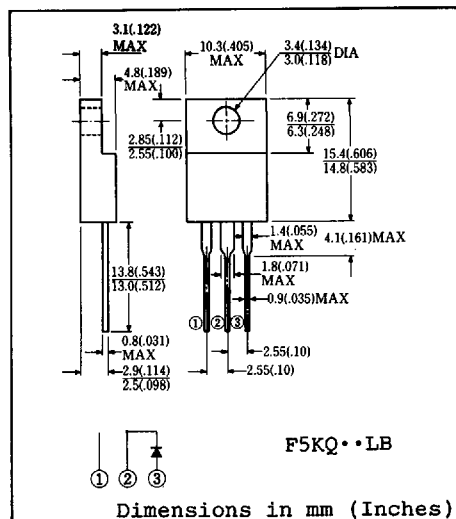


FEATURES

- Similar to TO-220AB Case Fully Molded Isolation
- Extremely Low Forward Voltage Drop
- Low Power Loss, High Efficiency
- High Surge Capability
- 20 Volts thru 100 Volts Types Available



Approx. Net Weight : 1.75 Grams

MAXIMUM RATINGS

Voltage Rating	TYPE	◆ F5KQ20LB	◆ F5KQ30LB	Unit	
	Symbol				
Repetitive Peak Reverse Voltage	V_{RRM}	20	30	V	
Repetitive Peak Surge Reverse Voltage (Pulse Width $\leq 1 \mu\text{sec}$) (Duty $\leq 1/50$)	V_{RRSM}	25	35	V	
Electrical Rating	Symbol	Condition		Rating	Unit
Average Rectified Output Current	I_o	180° rectangular wave conduction $T_c = 104^\circ\text{C}$		5.5	A
		180° sinusoidal wave conduction $T_c = 108^\circ\text{C}$		5.0	
RMS Forward Current	$I_{F(RMS)}$			7.9	A
Peak One-cycle Forward Surge Current	I_{FSM}	50Hz half sine wave, non-repetive		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}	$I_{FM} = 5A$	$T_j = 25^\circ\text{C}$	0.47	V
Peak Reverse Current	I_{RM}	$V_{RM} = V_{RRM}$	$T_j = 25^\circ\text{C}$	5.0	mA
Thermal Resistance	$R_{th(j-c)}$	Junction to Case		5.0	°C/W
	$R_{th(c-f)}$	Case to Fin		1.5	

◆ For spare parts only

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FIG.1-FORWARD VOLTAGE VS. FORWARD CURRENT

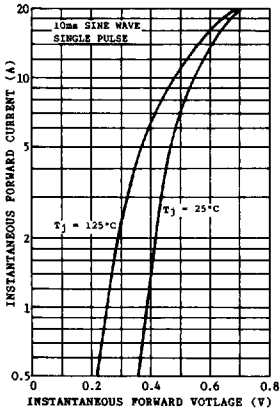


FIG.2-AVERAGE FORWARD POWER DISSIPATION

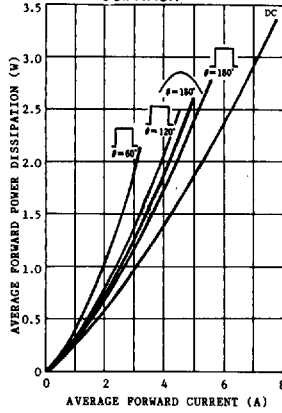


FIG.3-PEAK REVERSE CURRENT

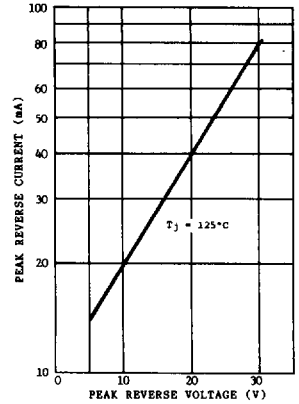


FIG.4-AVERAGE REVERSE POWER DISSIPATION

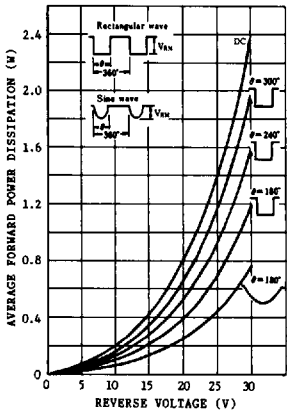


FIG.5-AVERAGE FORWARD CURRENT VS. AMBIENT TEMPERATURE

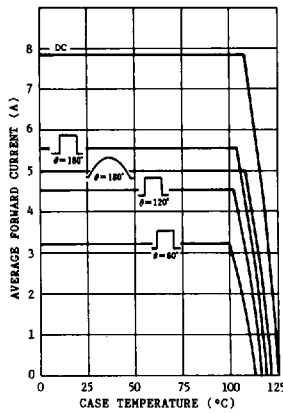


FIG.6-SURGE CURRENT RATINGS

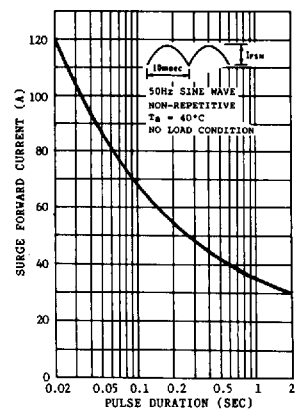


FIG.7-JUNCTION CAPACITANCE VS. REVERSE VOLTAGE

