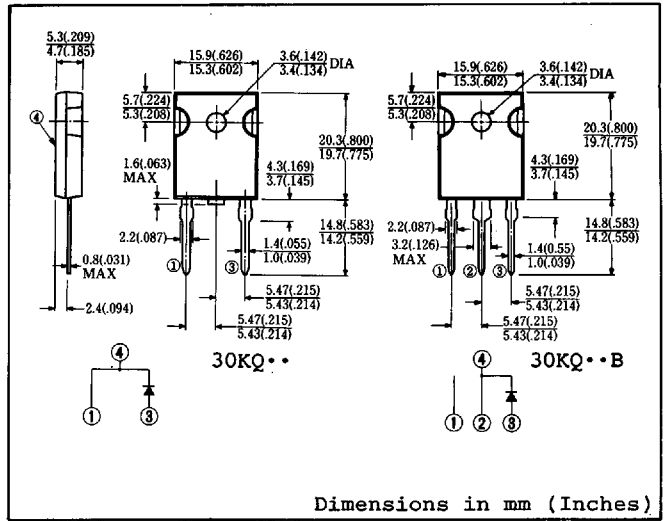


FEATURES

- Similar to TO-247AC (TO-3P) Case
- Low Forward Voltage Drop
- Low Power Loss, High Efficiency
- High Surge Current Capability
- 30 Volts through 60 Volts Types Available



Approx. Net Weight: 5.5 Grams 5.55 Grams

MAXIMUM RATINGS

Voltage Rating	TYPE	◆ 30KQ50	30KQ60	Unit	
	Symbol	◆ 30KQ50B	30KQ60B		
Repetitive Peak Reverse Voltage	V_{RRM}	50	60	V	
Non-Repetitive Peak Reverse Voltage	V_{RSM}	55	65	V	
Electrical Rating	Symbol	Condition		Rating	Unit
Average Rectified Output Current	I_O	180° rectangular wave conduction $T_C = 68^\circ\text{C}$		33	A
		180° sinusoidal wave conduction $T_C = 81^\circ\text{C}$		30	
RMS Forward Current	$I_{F(RMS)}$			47	A
Peak One-cycle Forward Surge Current	I_{FSM}	50Hz half sine wave, non-repetitive		450	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}	$I_{FM} = 30\text{A}$	$T_j = 25^\circ\text{C}$	0.67	V
Peak Reverse Current	I_{RM}	$V_{RM} = V_{RRM}$	$T_j = 25^\circ\text{C}$	25	mA
Thermal Resistance	$R_{th(j-c)}$	Junction to Case		1.3	°C/W

◆ For spare parts only

FIG.1-FORWARD VOLTAGE
VS. FORWARD CURRENT

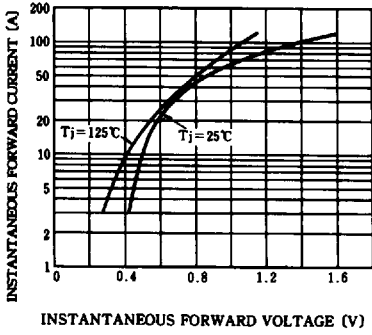


FIG.2-AVERAGE FORWARD POWER DISSIPATION

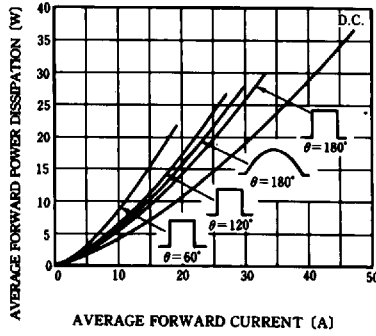


FIG.3-PEAK REVERSE CURRENT
VS. PEAK REVERSE VOLTAGE

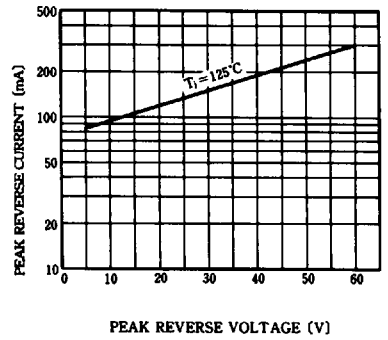


FIG.4-AVERAGE REVERSE POWER DISSIPATION

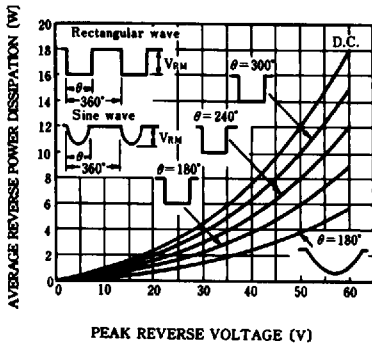


FIG.5-AVERAGE FORWARD CURRENT
VS. CASE TEMPERATURE

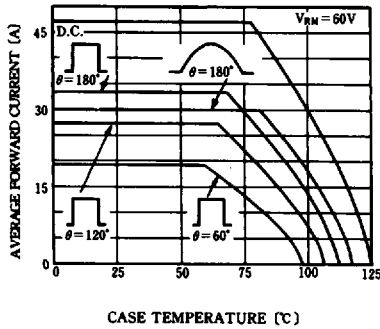


FIG.6- SURGE CURRENT RATINGS

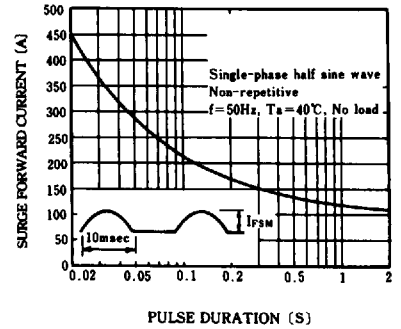


FIG.7-JUNCTION CAPACITANCE
VS. REVERSE VOLTAGE

