

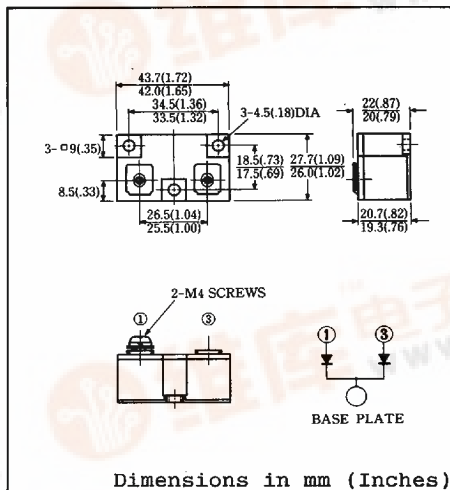
SCHOTTKY BARRIER DIODE MODULE

89A/20~30V

PC80QL02N PC80QL03N

FEATURES

- Dual - Cathode Common to Base Plate
- Extremely Low Forward Voltage Drop
- Low Power Loss, High Efficiency
- High Surge Capability



Dimensions in mm (Inches)

Approx. Net Weight: 65 grams

MAXIMUM RATINGS

Voltage Rating	TYPE Symbol	◆ PC80QL02N	PC80QL03N	Unit
Repetitive Peak Reverse Voltage per Arm	V_{RRM}	20	30	V
Repetitive Peak Surge Reverse Voltage per Arm (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 per Arm	I_O	180° rectangular wave conduction per Arm $T_C = 93^\circ\text{C}$	89	A
		50Hz half sine wave conduction per Arm $T_C = 99^\circ\text{C}$	80	
Peak One-cycle Forward Surge Current per Arm	I_{FSM}	50Hz half sine wave, non-repetitive	1600	A
Operating Junction Temperature Range	T_{jw}		-40 to 125	$^\circ\text{C}$
Storage Temperature Range	T_{stg}		-40 to 125	$^\circ\text{C}$
Mounting Torque	F_{tor}	Case mounting Terminal screw	1.4 ~ 1.5 (14 ~ 15)	N·m (kgf·cm)

ELECTRICAL & THERMAL CHARACTERISTICS

Characteristics	Symbol	Test Condition	Max.	Unit
Peak Forward Voltage	V_{FM}	$I_{FM} = 80\text{A}$ $T_j = 25^\circ\text{C}$ per Arm	0.46	V
Peak Reverse Current	I_{RM}	$V_{RM} = V_{RRM}$ $T_j = 25^\circ\text{C}$ per Arm	160	mA
Thermal Resistance	$R_{th(j-c)}$	Junction to Case per Arm	0.46	$^\circ\text{C/W}$
	$R_{th(c-f)}$	Case to Fin	0.12	

For spare parts only

6615123 0002121 304

FIG.1-FORWARD VOLTAGE
VS. FORWARD CURRENT

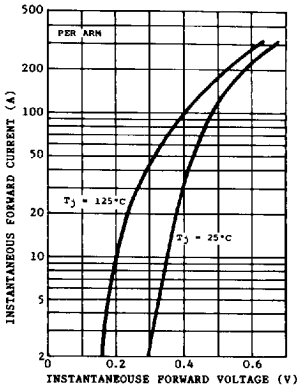


FIG.2-AVERAGE FORWARD
POWER DISSIPATION

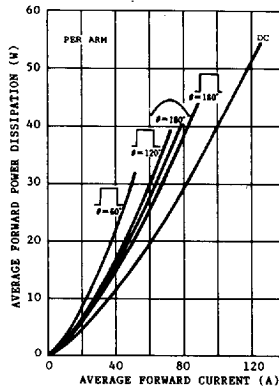


FIG.3-PEAK REVERSE CURRENT
VS. PEAK REVERSE VOLTAGE

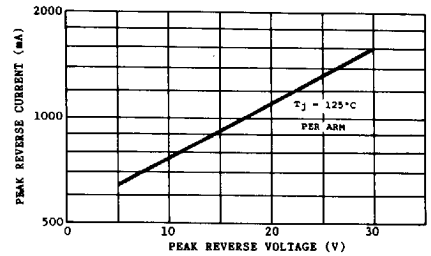


FIG.4-AVERAGE REVERSE POWER DISSIPATION

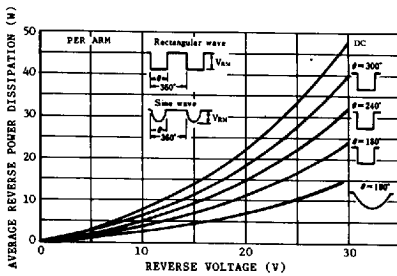


FIG.5-AVERAGE FORWARD CURRENT

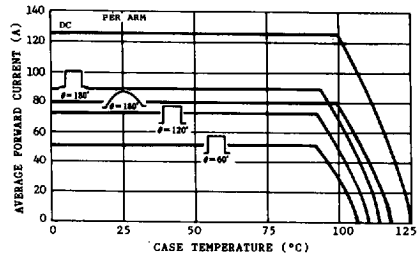


FIG.6-SURGE CURRENT RATINGS

