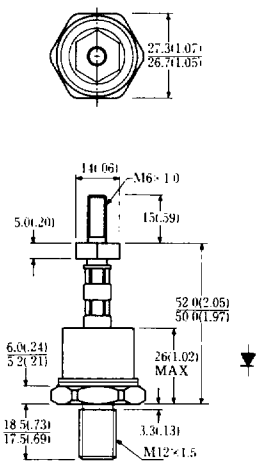
FEATURES

- Hermetically Sealed Case
- High Reliability Device
- Low Power Loss, High Efficiency
- High Surge Capability



Dimensions in mm (Inches)

Approx. Net Weight : 90 Grams

MAXIMUM RATINGS

Voltage Rating	TYPE / Symbol	◆ 151MQ30	◆ 151MQ40	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 = 75°C	166	A
		180° sinusoidal wave conduction T_C = 86°C	150	
RMS Forward Current	$I_{F(RMS)}$		235	A
Peak One-cycle Forward Surge Current	I_{FSM}	50Hz half sine wave, non-repetitive	2,400	A
Operating Junction Temperature Range	T_{jw}		-40 to 125	°C
Storage Temperature Range	T_{stg}		-40 to 125	°C
Mounting Torque	F_{tor}	Base Hex (recommend torque)	17 (173)	N•m (kgf•cm)
		Stud Nut (recommend torque)	3 (30.6)	

ELECTRICAL & THERMAL CHARACTERISTICS

Characteristics	Symbol	Test Condition	Max.	Unit
Peak Forward Voltage	V_{FM}	I_{FM} = 150A T_j = 25°C	0.6	V
Peak Reverse Current	I_{RM}	V_{RM} = V_{RRM} T_j = 25°C	100	mA
Thermal Resistance	$R_{th(j-c)}$	Junction to Case	0.3	°C/W
	$R_{th(c-f)}$	Case to Fin	0.1	

◆ For spare parts only

FIG.1-FORWARD VOLTAGE VS. FORWARD CURRENT

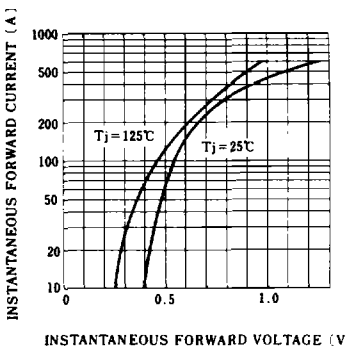


FIG.2-AVERAGE FORWARD POWER DISSIPATION

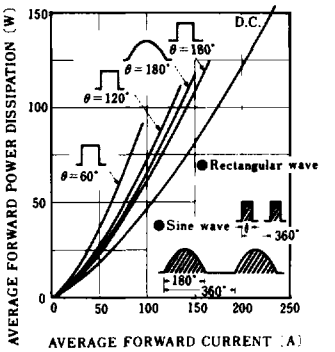


FIG.3-PEAK REVERSE CURRENT VS. PEAK REVERSE VOLTAGE

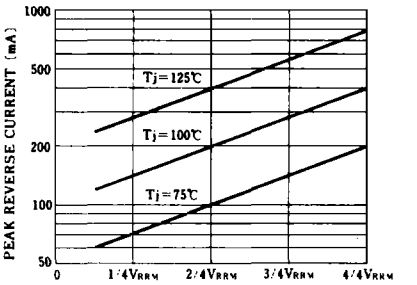


FIG.4-AVERAGE REVERSE POWER DISSIPATION

(151MQ40)
(151MQ30 IS FOR 75% RATED REVERSE POWER DISSIPATION)

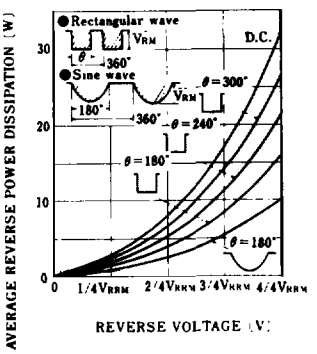


FIG.5-AVERAGE FORWARD CURRENT VS. CASE TEMPERATURE

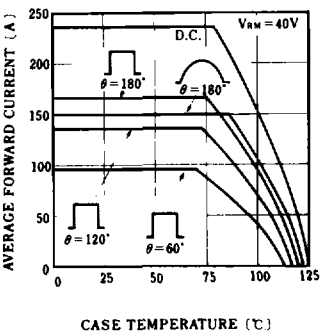


FIG.6-TRANSIENT THERMAL IMPEDANCE

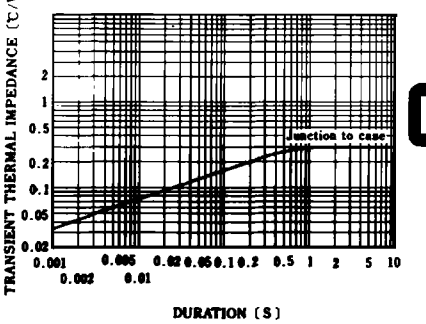


FIG.7-SURGE CURRENT RATINGS

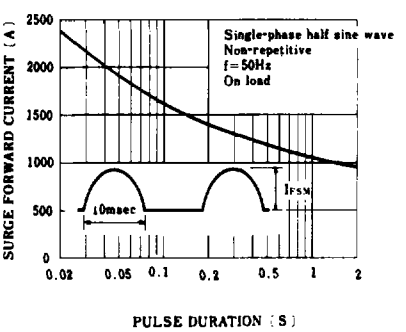
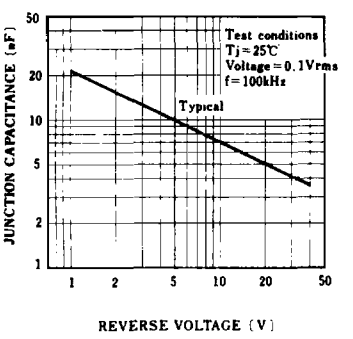


FIG.8-JUNCTION CAPACITANCE VS. REVERSE VOLTAGE



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