GAIA TECH

MBR4030FCT thru MBR40150FCT

SCHOTTKY BARRIER RECTIFIERS

REVERSE VOLTAGE - **30** to **150**Volts
FORWARD CURRENT - **40.0** Amperes

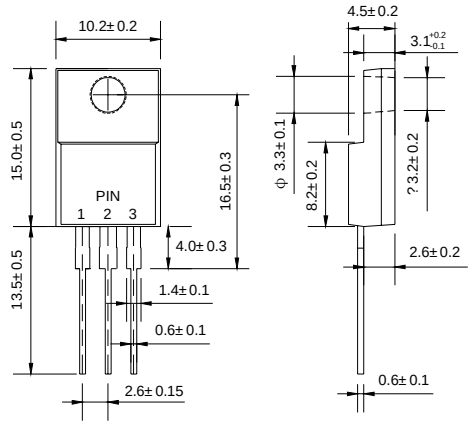
FEATURES

- Metal of silicon rectifier , majority carrier conduction
- Guard ring for transient protection
- Low power loss,high efficiency
- High current capability,low VF
- High surge capacity
- Plastic package has UL flammability classification 94V-0
- For use in low voltage,high frequency inverters,free wheeling,and polarity protection applications

MECHANICAL DATA

- Case: ITO-220AB molded plastic
- Polarity: As marked on the body
- Weight: 0.2ounces,5.6 grams
- Mounting position :Any

ITO-220AB



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25℃ ambient temperature unless otherwise specified.
Single phase, half wave ,60Hz, resistive or inductive load.
For capacitive load, derate current by 20%

CHARACTERISTICS	SYMBOL	MBR 4030FCT	MBR 4040FCT	MBR 4050FCT	MBR 4060FCT	MBR 4080FCT	MBR 40100FCT	MBR 40150FCT	UNIT
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	30	40	50	60	80	100	150	V
Maximum RMS Voltage	V_{RMS}	21	28	35	42	56	70	105	V
Maximum DC Blocking Voltage	V_{DC}	30	40	50	60	80	100	150	V
Maximum Average Forward Rectified Current (See Fig.1) @T_C=100℃	$I_{(AV)}$	40							A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load (JEDEC Method)	I_{FSM}	375							A
Peak Forward Voltage at 20.0A DC	V_F	0.55		0.70		0.85		0.95	V
Maximum DC Reverse Current @T_J=25℃ at Rated DC Bolcking Voltage @T_J=100℃	I_R	1.0 100							mA
Typical Junction Capacitance (Note1)	C_J	800							pF
Typical Thermal Resistance (Note2)	$R_{\theta JC}$	1.4							℃/W
Operating Temperature Range	T_J	-55 to + 125							℃
Storage Temperature Range	T_{STG}	-55 to + 150							℃

NOTES: 1.Measured at 1.0 MHz and applied reverse voltage of 4.0VDC.

2.Thermal resistance junction to case.

FIG. 1 – FORWARD CURRENT DERATING CURVE

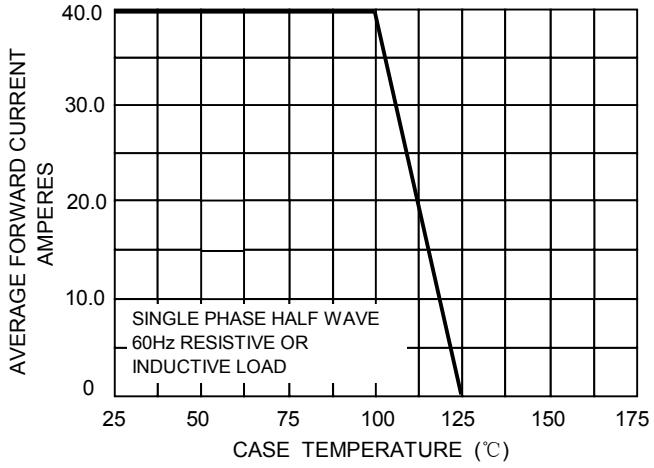


FIG. 2 – MAXIMUM NON-REPETITIVE SURGE CURRENT

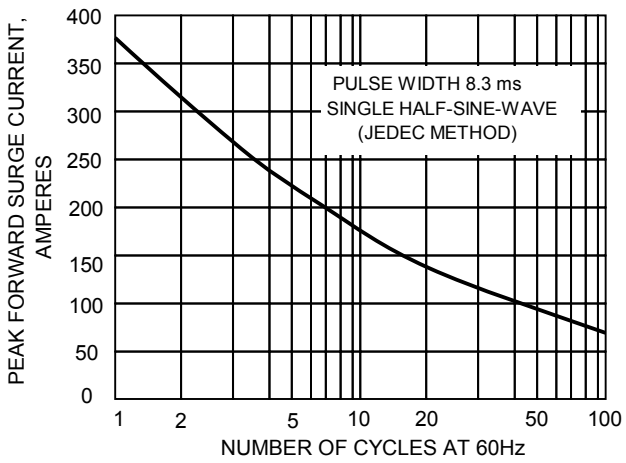


FIG.3-TYPICAL REVER CHARACTERISTICS

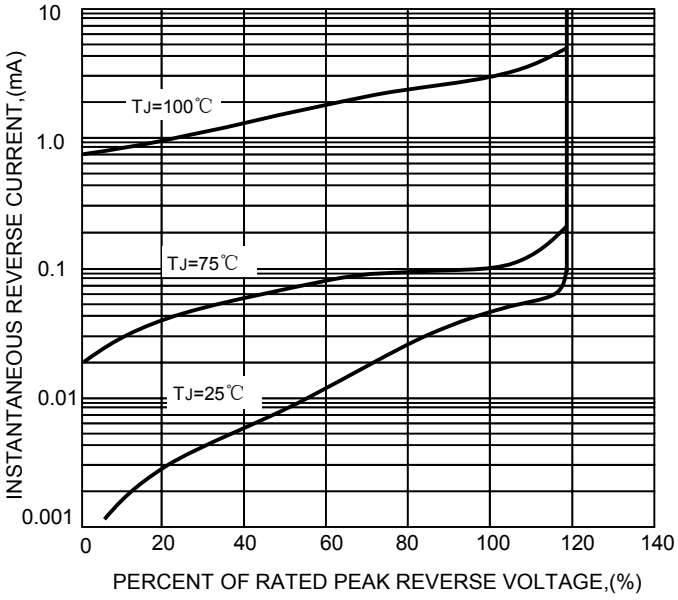


FIG.4-TYPICAL FORWARD CHARACTERISTICS

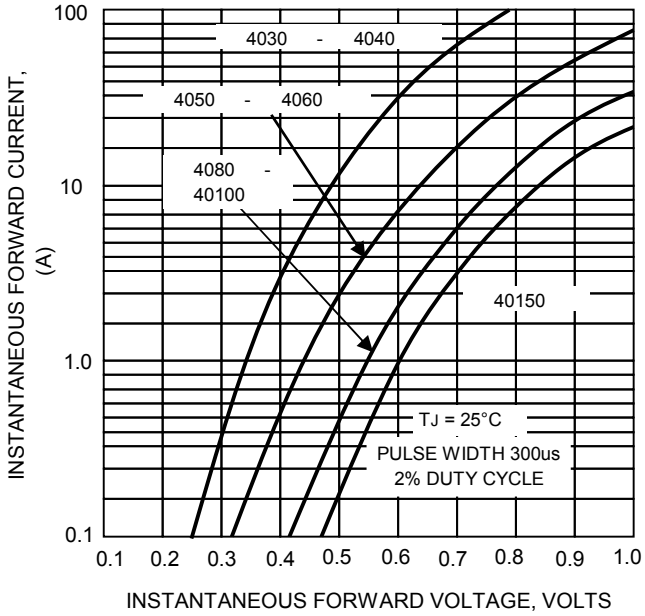


FIG.5 – TYPICAL JUNCTION CAPACITANCE