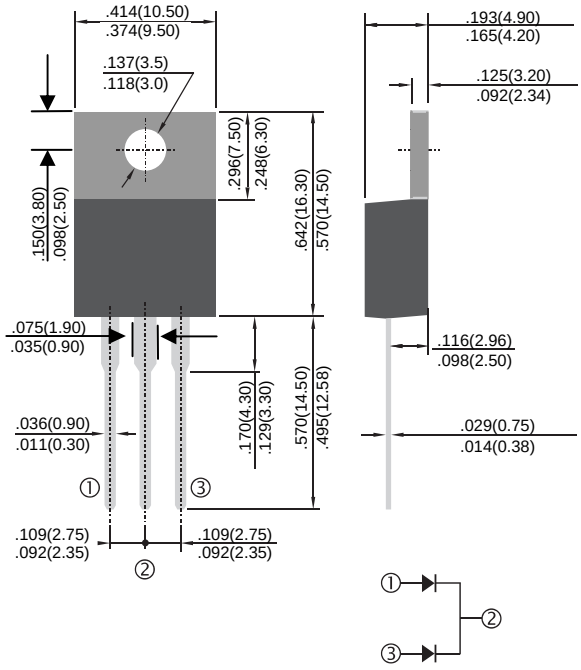
YEA SHIN TECHNOLOGY CO., LTD MBRL1040FCT THRU MBRL10200FCT

10A Low V_F SCHOTTKY Barrier Rectifier
Voltage - 40 to 200 Volts Current – 10 Amperes

Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0. Flame Retardant Epoxy Molding Compound.
- Metal silicon junction, majority carrier conduction
- Low power loss, high efficiency.
- High current capability
- For use in low voltage, high frequency inverters free wheeling, and polarlity protection applications.
- Lead free in comply with EU RoHS.

ITO-220AB Unit:inch(mm)



Mechanical Data

- Case: ITO-220AB molded plastic
- Terminals: solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: As marked.
- Mounting Position: Any

Maximum Ratings & Thermal Characteristics (Ratings at 25℃ ambient temperature unless otherwise specified.)
(Single Phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate by 20%.)

Parameters	Symbol	MBRL 1040FCT	MBRL 1045FCT	MBRL 1060FCT	MBRL 10100FCT	MBRL 10200FCT	Unit
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	40	45	60	100	200	V
Maximum RMS Voltage	V_{RMS}	28	31.5	42	70	140	V
Maximum DC Blocking Voltage	V_{DC}	40	45	60	100	200	V
Maximum Average Froward Rectified Current	$I_{(AV)}$	10					A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	150					A
Maximum Instantaneous Forward Voltage at 5.0A Per Diode	V_F	0.45		0.5	0.6	0.85	V
Maximum DC Reverse Current Ta=25℃ at Rated DC Blocking Voltage Ta=125℃	I_R	0.25 20 (Typ.)		0.12 12 (Typ.)	0.05 7.2(Typ.)		mA
Typical Junction Capacitance (Note 1)	C_J	500		300	620		pF
Maximum Thermal Resistance(Note 2)	$R_{\theta JC}$	15					℃/W
Operating Temperature Range	T_J	-55 to +150					℃
Storage Temperature Range	T_{STG}	-55 to +150					℃

Notes: 1. Measure at 1.0MHz and applied reverse voltage of 4.0 Vdc.
2. Mounted on infinite heatsink.

DEVICE CHARACTERISTICS

MBRL1040FCT THRU MBRL10200FCT

40-45V

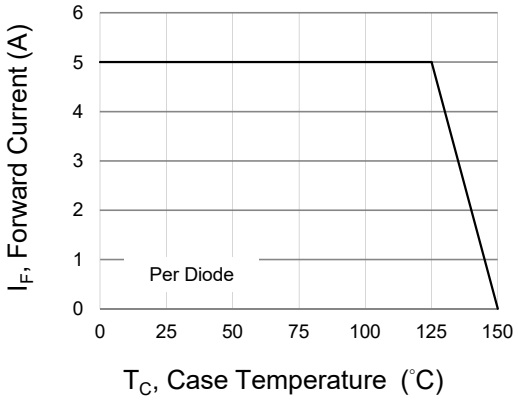


Fig.1 Forward Current Derating Curve

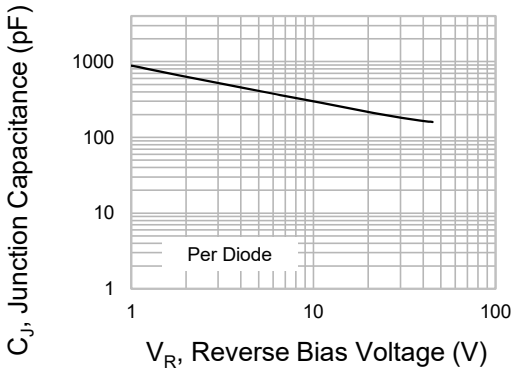


Fig.2 Typical Junction Capacitance

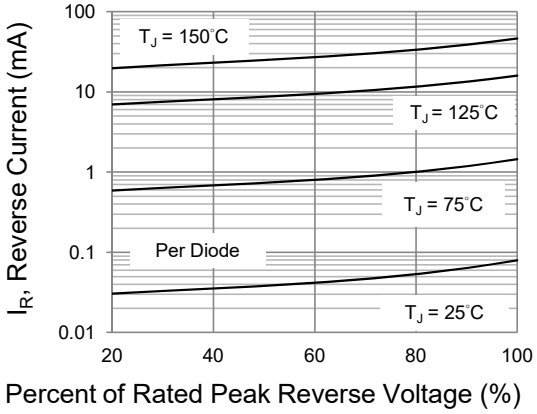


Fig.3 Typical Reverse Characteristics

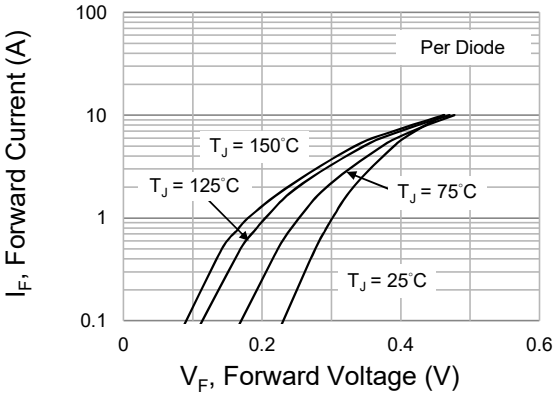


Fig.4 Typical Forward Characteristics

DEVICE CHARACTERISTICS

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60V

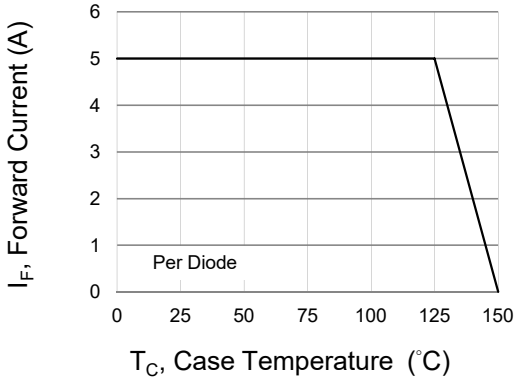

Fig.1 Forward Current Derating Curve

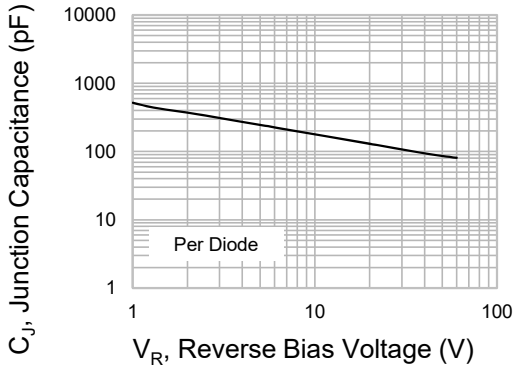

Fig.2 Typical Junction Capacitance

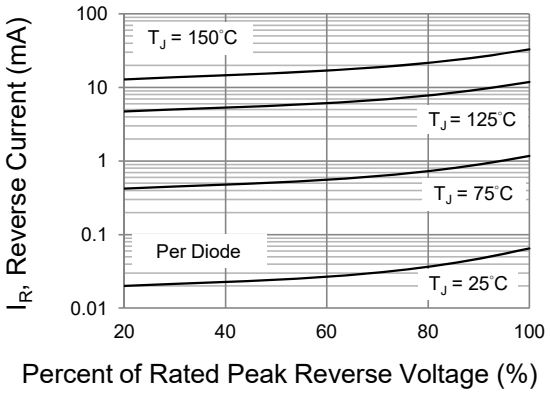

Fig.3 Typical Reverse Characteristics

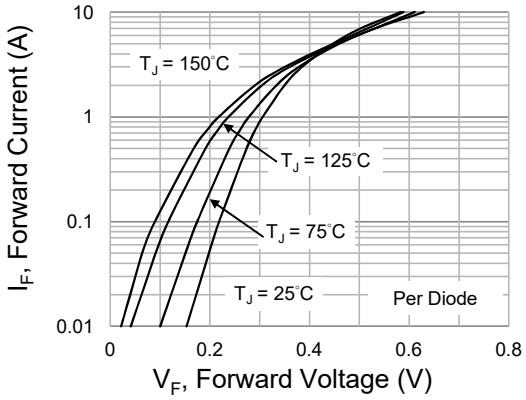

Fig.4 Typical Forward Characteristics

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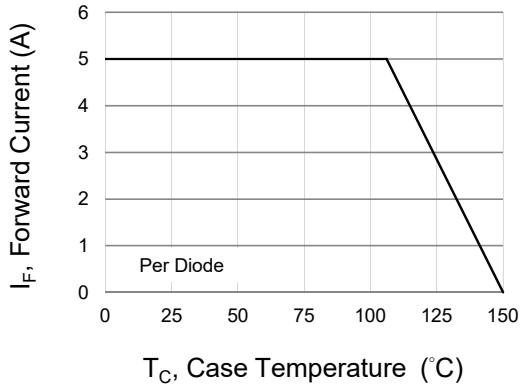
100V



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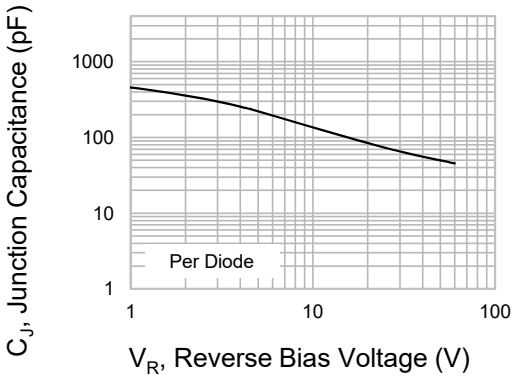

Fig.2 Typical Junction Capacitance

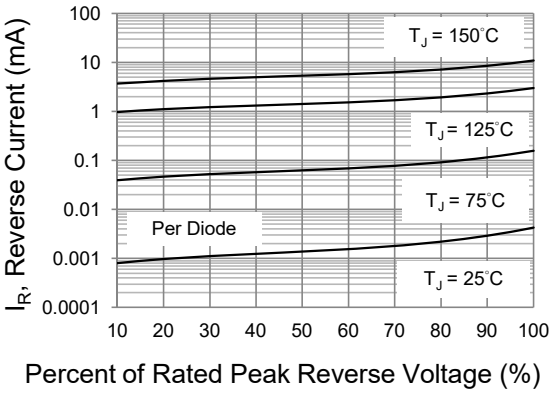

Fig.3 Typical Reverse Characteristics

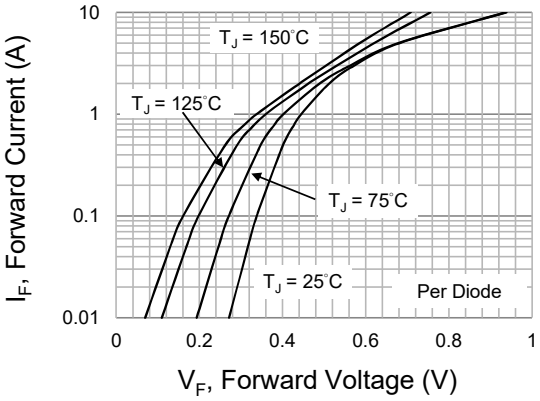

Fig.4 Typical Forward Characteristics

DEVICE CHARACTERISTICS

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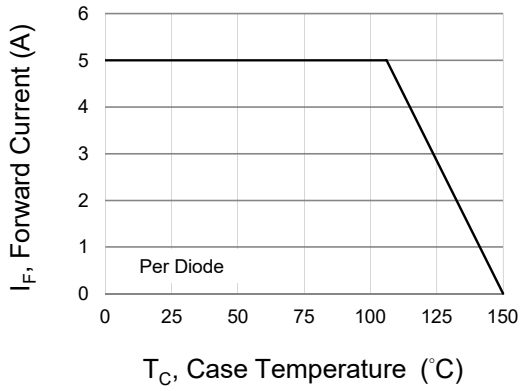
200V



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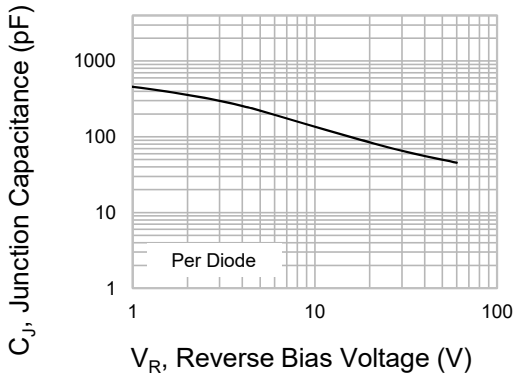
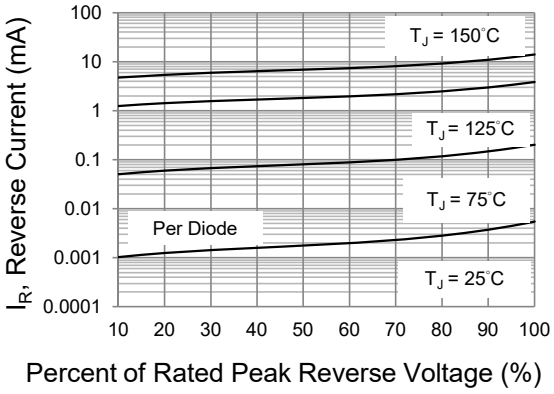


Fig.2 Typical Junction Capacitance



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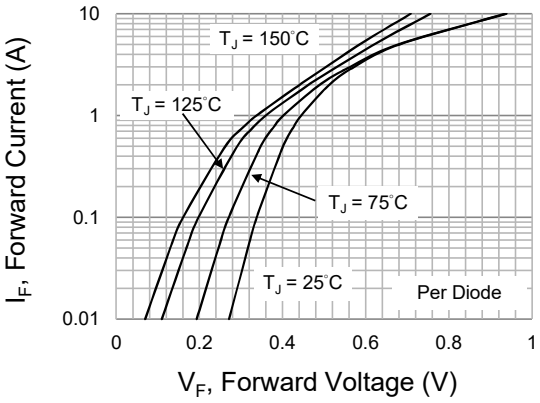

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