MBR60L60FCTW

List

MBR60L60FCTW

60A 60V Power Low VF Schottky Barrier Rectifier

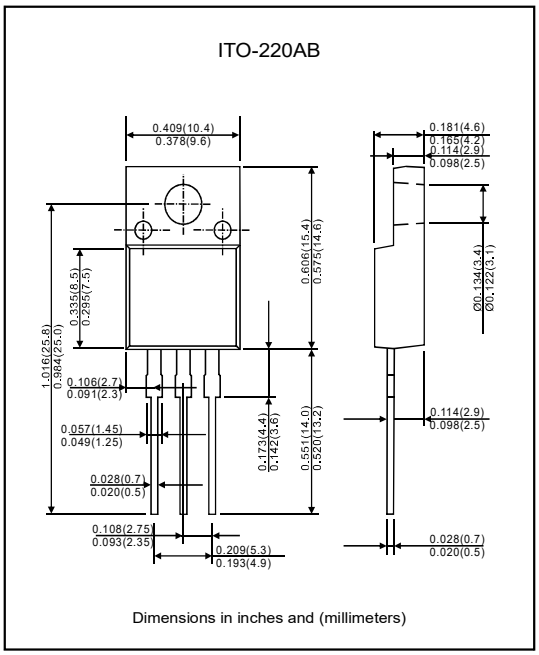
Features

- Ultra low V_F.
- High efficiently operation.
- Low power loss.
- Low stored charge majority carrier conduction.
- High forward surge capability.
- Lead-free parts meet RoHS requirements.
- Suffix "-H" indicates Halogen-free parts, ex. MBR60L60FCTW-H.

Mechanical data

- Case : Molded plastic, ITO-220AB.
- Leads : Solder able per MIL-STD-202, Method 208 .
- Terminals : Puretin plated.
- Polarity : Polarity symbol marking on body.

Package outline



Maximum ratings (At T_A=25°C unless otherwise noted)

Parameter	Symbol	Ratings	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	60	V
Maximum RMS voltage	V_{RMS}	42	V
Maximum DC blocking voltage	V_{DC}	60	V
Maximum average forward rectified per device	$I_{(AV)}$	60	A
Maximum average forward rectified per diode		30	
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	350	A
Typical thermal resistance per diode (Note 1)	$R_{\theta JC}$	4.5	°C/W
Operating junction temperature	T_J	+150	°C
Storage temperature range	T_{STG}	-55 to +150	°C

Electrical characteristics (At T_A=25°C unless otherwise noted)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Breakdown voltage per diode	V_{BR}	I_R=0.5mA	60			V
Instantaneous forward voltage per diode	V_F	I_F=30A (T_J=25°C)		0.63	0.65	V
		I_F=30A (T_J=125°C)		0.65	0.67	
Reverse current per diode	I_R	V_R=60V (T_J=25°C)			200	μA
		V_R=60V (T_J=125°C)			60	mA

Note : 1. Thermal resistance from junction to case.

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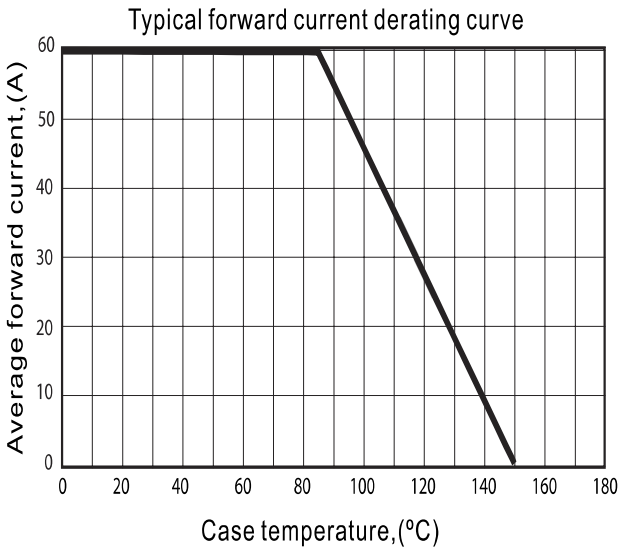
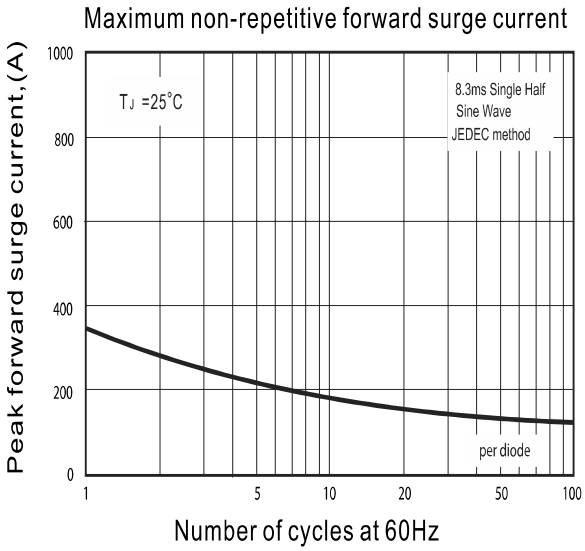
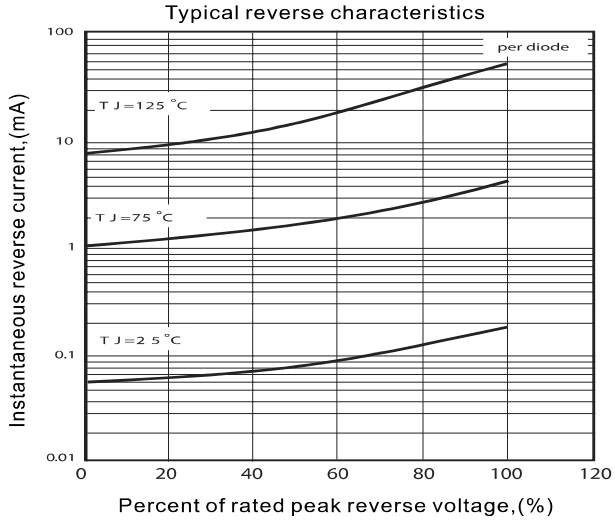
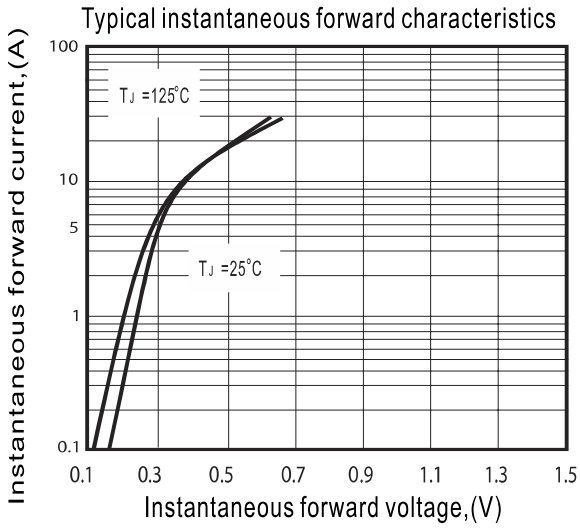
Rating and characteristic curves









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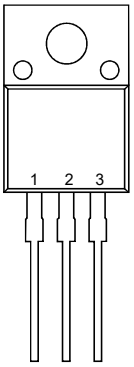
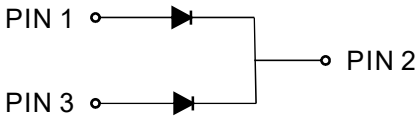
Pinning information

Pin	Simplified outline	Symbol
Pin1 Anode Pin2 Cathode Pin3 Anode		

Marking

Type number	Marking code
MBR60L60FCTW	MBR60L60FCT

Tube packing

PACKAGE	TUBE (pcs)	BOX (pcs)	INNER BOX (m/m)	CARTON SIZE (m/m)	CARTON (pcs)
ITO-220AB	50	2,000	550*167*75	570*345*170	8,000

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Suggested thermal profiles for soldering processes

1.Lead free temperature profile wave-soldering