

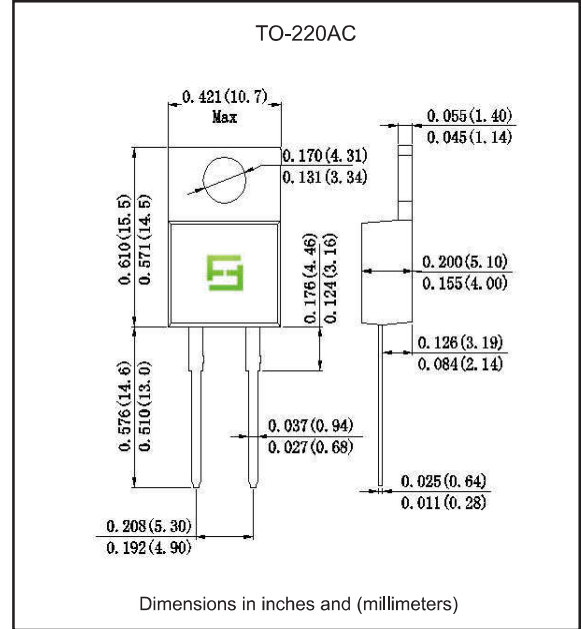
Features

- Low power loss, high efficiency.
- High current capability
- High surge capability.
- Guardring for overvoltage protection.
- Low stored charge majority carrier conduction
- Silicon epitaxial planar chip, metal silicon junction.
- Lead-free parts meet environmental standards of MIL-STD-19500 /228

Mechanical data

- Epoxy:UL94-V0 rated flame retardant
- Case : Molded plastic, TO-220AC
- Terminals : Solder plated, solderable per MIL-STD-750, Method 2026
- Mounting Position : Any

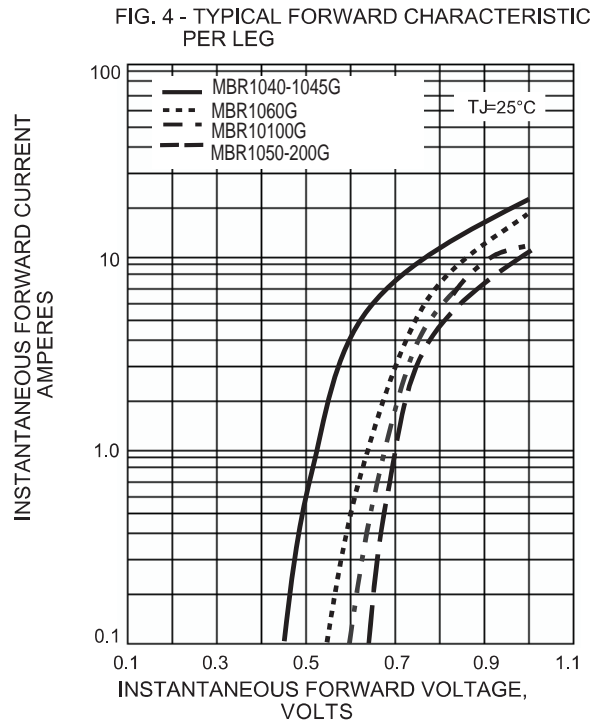
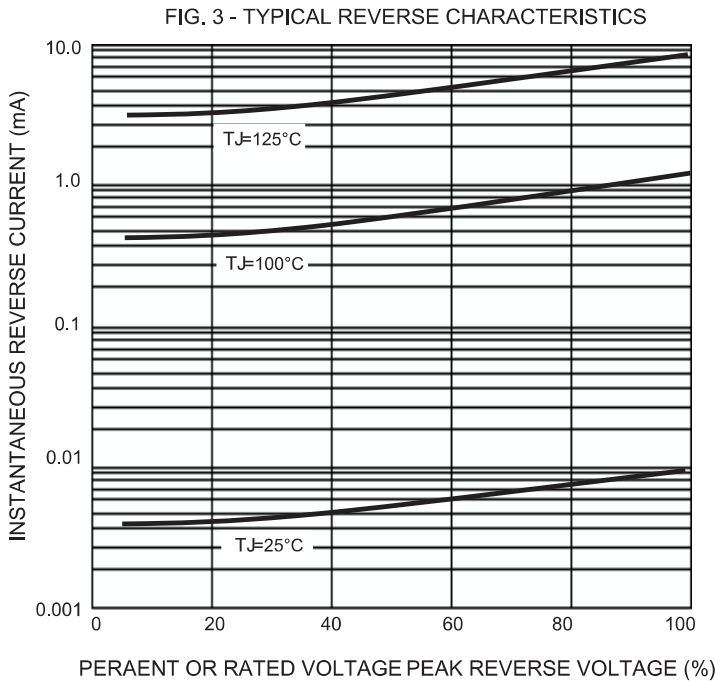
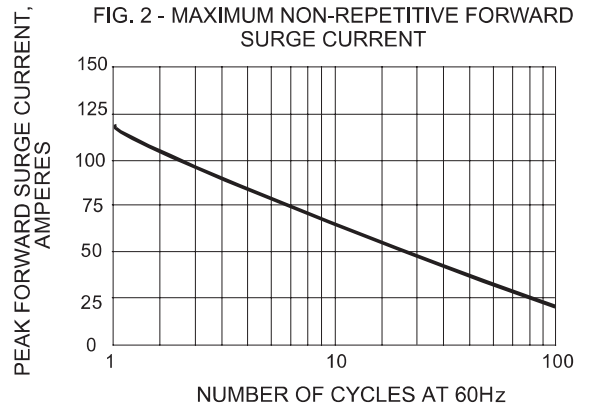
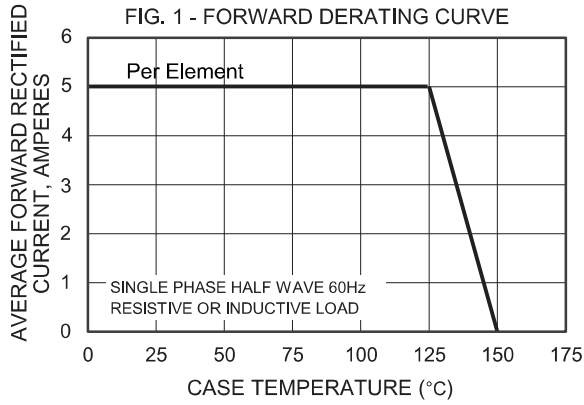
Package outline



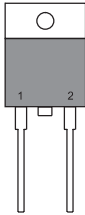
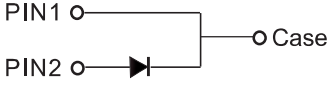
Maximum ratings and Electrical Characteristics (AT $T_A=25^{\circ}\text{C}$ unless otherwise noted)

Parameter	SYMBOLS	MBR 1040G	MBR 1045G	MBR 1060G	MBR 10100G	MBR 10150G	MBR 10200G	UNITS
Maximum repetitive peak reverse voltage	V_{RRM}	40	45	60	100	150	200	V
Maximum RMS voltage	V_{RMS}	28	31.5	42	70	105	140	V
Maximum DC blocking voltage	V_{DC}	40	45	60	100	150	200	V
Maximum average forward rectified current at $T_c=110^{\circ}\text{C}$	$I_{(AV)}$	10.0						A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	150.0						A
Maximum instantaneous forward voltage at 10.0A	V_F	0.55		0.70	0.85		0.95	V
Maximum DC reverse current at rated DC blocking voltage $T_A = 25^{\circ}\text{C}$ $T_A = 125^{\circ}\text{C}$	I_R	0.5 50			0.05 10			mA
Typical thermal resistance	R_{qJC}	3.5						$^{\circ}\text{C/W}$
Operating junction temperature range	T_J	-55 to +150						$^{\circ}\text{C}$
Storage temperature range	T_{STG}	-55 to +150						$^{\circ}\text{C}$

Rating and characteristic curves



Pinning information

Pin	Simplified outline	Symbol
Pin1 cathode Pin2 anode		

Marking

Type number	Marking code
MBR1040G	MBR1040
MBR1045G	MBR1045
MBR1050G	MBR1050
MBR1060G	MBR1060
MBR10100G	MBR10100
MBR10150G	MBR10150
MBR10200G	MBR10200

Suggested thermal profiles for soldering processes

1. Lead free temperature profile wave-soldering

