

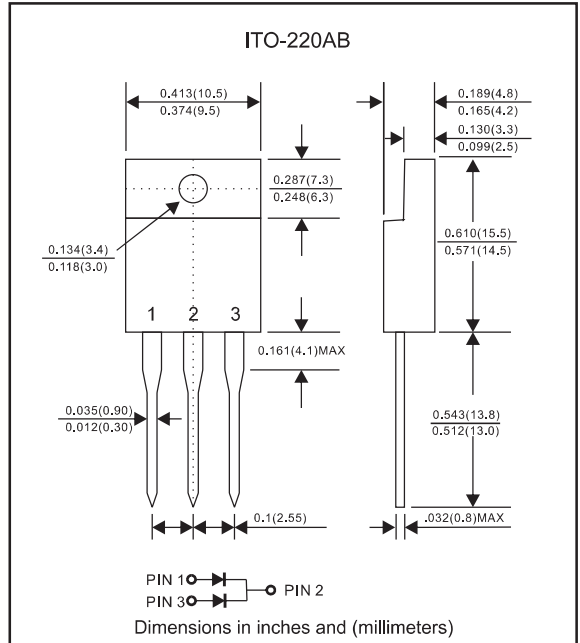
Features

- 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
- Suffix "-H" indicates Halogen-free parts, ex. MBR1640FCT-H.

Mechanical data

- Epoxy : UL94-V0 rated flame retardant
- Case : JEDEC ITO-220AB molded plastic body over passivated chip
- Lead : Axial leads, solderable per MIL-STD-202, Method 208 guaranteed
- Polarity: Color band denotes cathode end
- Mounting Position : Any

Package outline



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

PARAMETER	CONDITIONS	Symbol	MIN.	TYP.	MAX.	UNIT
Forward rectified current	See Fig.1	I_O			16.0	A
Forward surge current	8.3ms single half sine-wave (JEDEC methode)	I_{FSM}			150	A
Reverse current	$V_R = V_{RRM} T_J = 25^\circ\text{C}$	I_R			0.05	mA
	$V_R = V_{RRM} T_J = 125^\circ\text{C}$				10	
Thermal resistance	Junction to case	$R_{\theta JC}$		3.0		$^\circ\text{C/W}$
Storage temperature		T_{STG}	-65		+175	$^\circ\text{C}$

SYMBOLS	V_{RRM}^{*1} (V)	V_{RMS}^{*2} (V)	V_R^{*3} (V)	V_F^{*4} (V)	Operating temperature T_J ($^\circ\text{C}$)
MBR1640FCT	40	28	40	0.70	-55 to +150
MBR1645FCT	45	31.5	45		
MBR1650FCT	50	35	50	0.80	
MBR1660FCT	60	42	60		
MBR1680FCT	80	56	80	0.85	-55 to +175
MBR16100FCT	100	70	100		
MBR16150FCT	150	105	150	0.92	
MBR16200FCT	200	140	200		

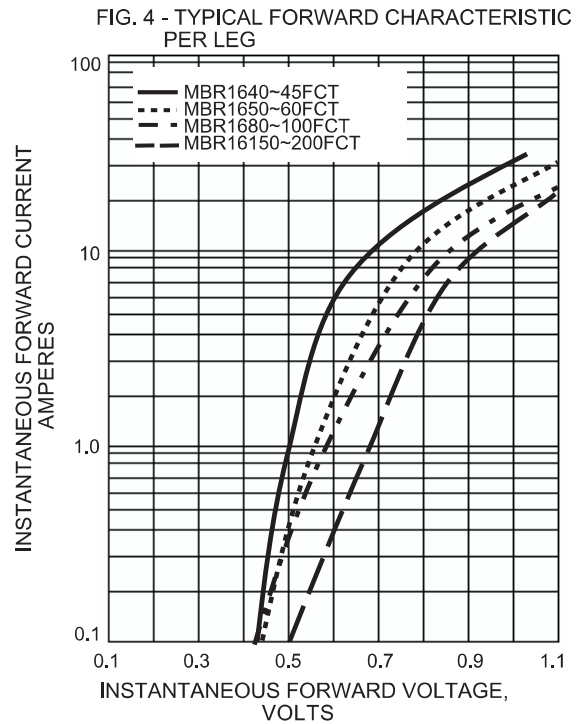
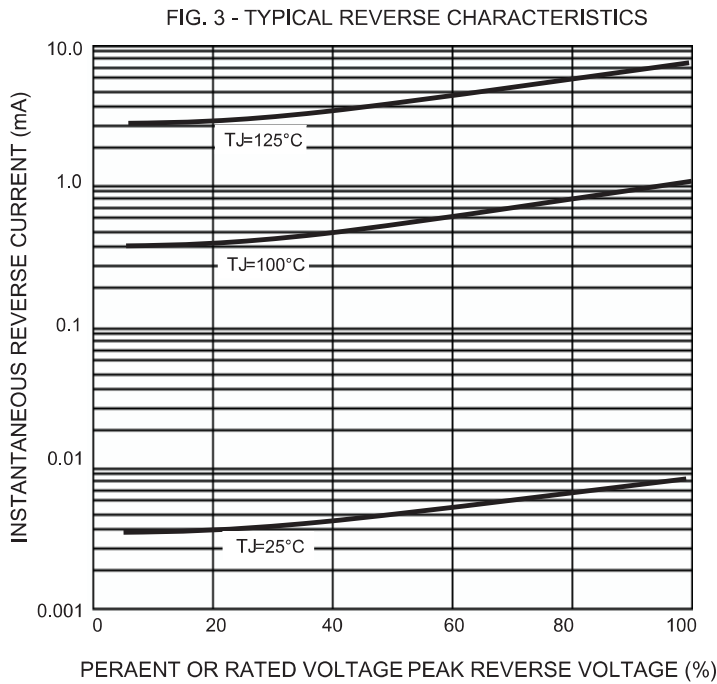
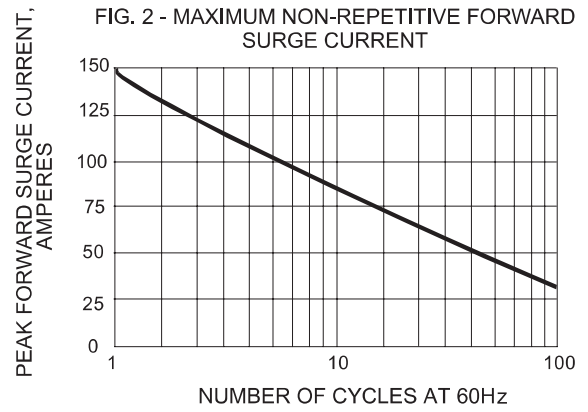
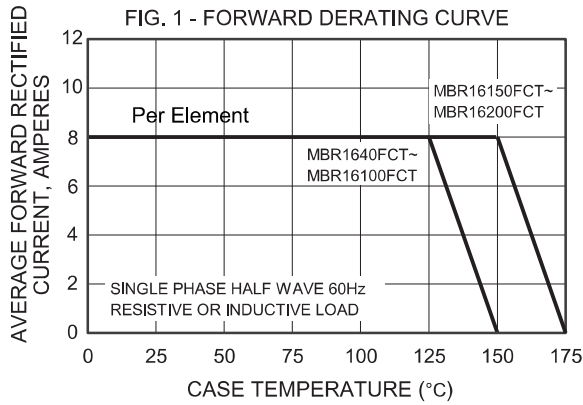
*1 Repetitive peak reverse voltage

*2 RMS voltage

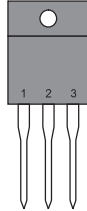
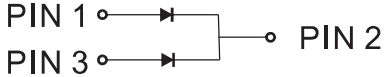
*3 Continuous reverse voltage

*4 Maximum forward voltage
IF = 8.0A

Rating and characteristic curves (MBR1640FCT THRU MBR16200FCT)



Pinning information

Pin	Simplified outline	Symbol
Pin1 anode Pin2 cathode Pin3 anode		

Marking

Type number	Marking code
MBR1640FCT	MBR1640FCT
MBR1645FCT	MBR1645FCT
MBR1650FCT	MBR1650FCT
MBR1660FCT	MBR1660FCT
MBR1680FCT	MBR1680FCT
MBR16100FCT	MBR16100FCT
MBR16150FCT	MBR16150FCT
MBR16200FCT	MBR16200FCT