

Pb Free Plating Product

MBRF2040CT thru MBRF20250CT



20.0 Amperes Insulated Dual Common Cathode Schottky Half Bridge Rectifiers

**Features**

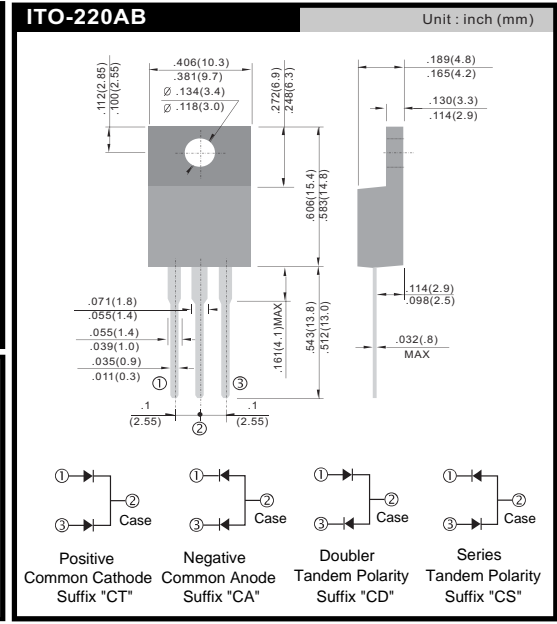
- \* Latest MBR matured technology with high reliability
- \* Low forward voltage drop
- \* High current capability
- \* Low reverse leakage current
- \* High surge current capability

**Application**

- \* Automotive Inverters and Solar Inverters
- \* Plating Power Supply, SMPS, EPS and UPS
- \* Car Audio Amplifiers and Sound Device Systems

**Mechanical Data**

- \* Case: Fully Isolated Molding TO-220F Full Plastic Pak
- \* Epoxy: UL 94V-0 rate flame retardant
- \* Terminals: Solderable per MIL-STD-202 method 208
- \* Polarity: As marked on diode body
- \* Mounting position: Any
- \* Weight: 2.2 gram approximately



Maximum Ratings And Electrical Characteristics

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

Parameter	Symbol	MBRF2040CT	MBRF2060CT	MBRF20100CT	MBRF20150CT	MBRF20200CT	MBRF20250CT	Unit
Body Marking		MBRF2040CT	MBRF2060CT	MBRF20100CT	MBRF20150CT	MBRF20200CT	MBRF20250CT	
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	40	60	100	150	200	250	V
Maximum RMS Voltage	$V_{RMS}$	28	42	70	105	140	175	V
Maximum DC Blocking Voltage	$V_{DC}$	40	60	100	150	200	250	V
Maximum Forward Voltage@10A, $T_A=25^\circ C$	$V_F$	0.70	0.79	0.81	0.87	0.90	0.95	V
@10A, $T_A=125^\circ C$		0.57	0.70	0.71	0.77	0.80	0.85	
@20A, $T_A=25^\circ C$		0.84	0.95	0.95	1.0	1.0	-	
Operating Temperature	$T_J$	-50 ~ +150						°C

Parameter	Conditions	Symbol	Min.	Typ.	Max.	Unit
Forward Rectified Current	See Fig.1	$I_O$			20	A
Forward Surge Current	8.3ms single half sine-wave superimposed on rate load (JEDEC method)	$I_{FSM}$			150	A
Reverse Current	$V_R=V_{RRM}, T_A=25^\circ C$	$I_R$			0.1	mA
	$V_R=V_{RRM}, T_A=125^\circ C$				10	
Thermal Resistance	Junction to ambient	$R_{\theta JA}$		30		°C/W
Diode Junction Capacitance	f=1MHz and applied 4V DC reverse voltage	$C_J$		150		pF
Storage Temperature		$T_{STG}$	-50		+150	°C

Rated and Characteristic Curve

