

# DATA SHEET

## MBR20100FCT SERIES

### DUAL SCHOTTKY BARRIER RECTIFIER

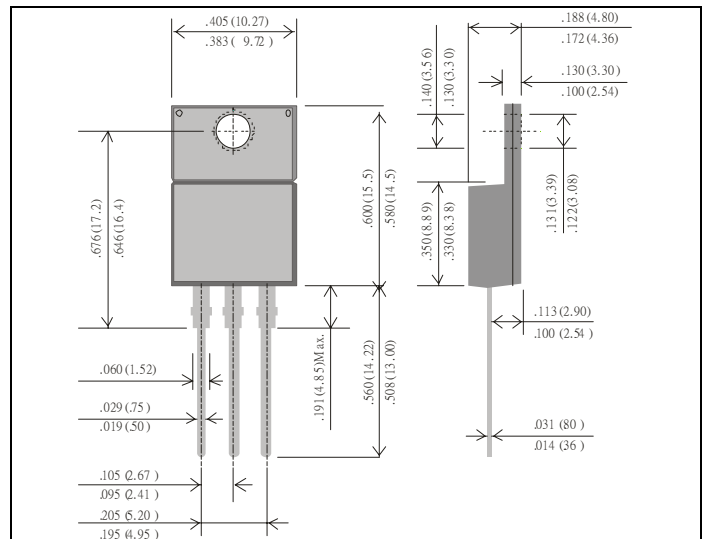
**VOLTAGE** 100~200 Volts **CURRENT** 20 Ampere

#### FEATURES

- EXTREMELY LOW  $V_F$
- LOW STORED CHARGE, MAJORITY CARRIER CONDUCTION
- LOW POWER LOSS / HIGH EFFICIENCY
- UL 94V0 FLAME RETARDANT EPOXY MOLDING COMPOUND

#### MECHANICAL DATA

- CASE : TRANSFER MOLDED
- LEADS : SOLDERABLE PER MIL-STD-202,METHOD 208
- POLARITY : AS MARKED
- WEIGHT : 2.24 GRAMS



CASE : ITO-220AB

DIMENSIONS IN INCHES AND (MILLIMETERS)

#### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

**R RATINGS AT 25°C AMBIENT TEMPERATURE UNLESS OTHERWISE SPECIFIED.**

PARAMETER	SYMBOL	MBR20100FCT	MBR20120FCT	MBR20150FCT	MBR20200FCT	UNITS
MAXIMUM RECURRENT PEAK REVERSE VOLTAGE	$V_{RRM}$	100	120	150	200	V
MAXIMUM RMS VOLTAGE	$V_{RMS}$	70	84	105	140	V
MAXIMUM DC BLOCKING VOLTAGE	$V_{DC}$	100	120	150	200	V
MAXIMUM AVERAGE FORWARD RECTIFIED CURRENT PER LEG (SEE FIG.1)	$I_{AV}$	20				A
PEAK FORWARD SURGE CURRENT, 8.3ms SINGLE HALF SINE-WAVE SUPERIMPOSED ON RATED LOAD	$I_{FSM}$	200				A
STORAGE TEMPERATURE RANGE	$T_{STG}$	-55 TO +150				°C
OPERATING TEMPERATURE RANGE	$T_J$	-55 TO +150				°C
TYPICAL THERMAL RESISTANCE	$R_{\theta JC}$	2.2				°C/W

**ELECTRICAL CHARACTERISTICS ( $A_T T_A = 25^\circ\text{C}$  UNLESS OTHERWISE NOTED)**

PARAMETER	SYMBOL	MBR20100FCT	MBR20120FCT	MBR20150FCT	MBR20200FCT	UNITS
MAXIMUM FORWARD VOLTAGE AT 5A PER LEG	$V_F$	0.85	0.87	0.90	0.92	V
MAXIMUM DC REVERSE CURRENT AT $T_A = 25^\circ\text{C}$ (NOTE 1)	$I_R$	0.1				mA

NOTES : 1. PULSE TEST: 300 $\mu$ S PULSE WIDTH, 1% DUTY CYCLE

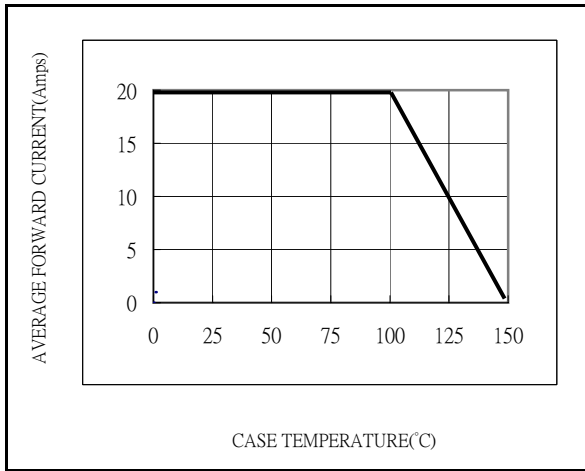


Fig.1-FORWARD CURRENT DERATING CURVE

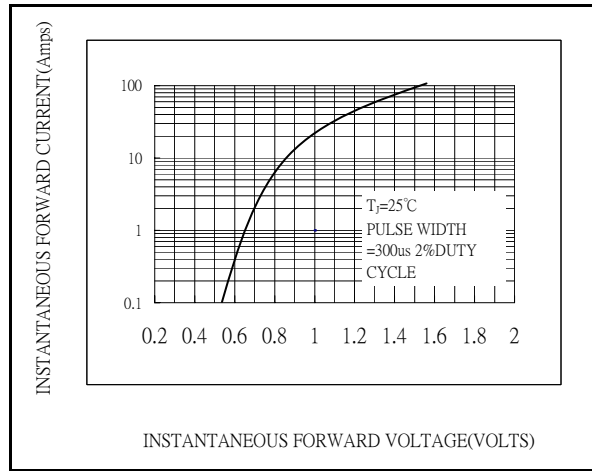


Fig.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

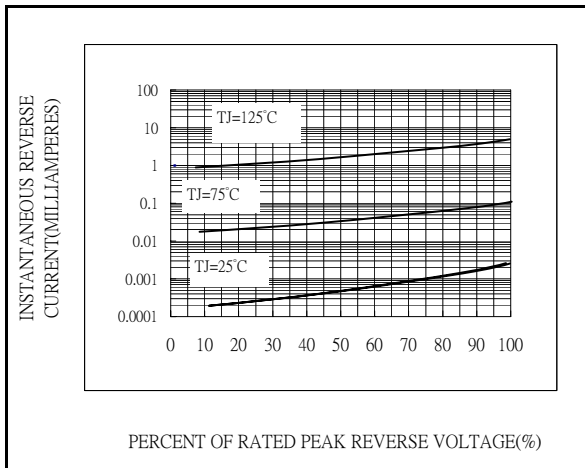


Fig.3-TYPICAL REVERSE CHARACTERISTICS

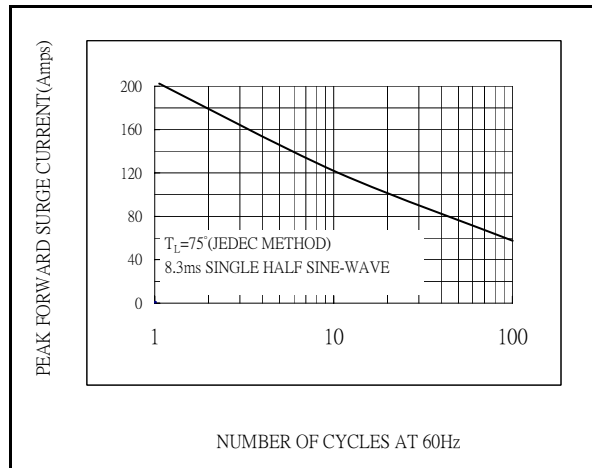


Fig.4-MAXIMUM NON-REPETITIVE SURGE CURRENT