

DATA SHEET

MBRD10200CT SERIES

DUAL SCHOTTKY BARRIER RECTIFIER

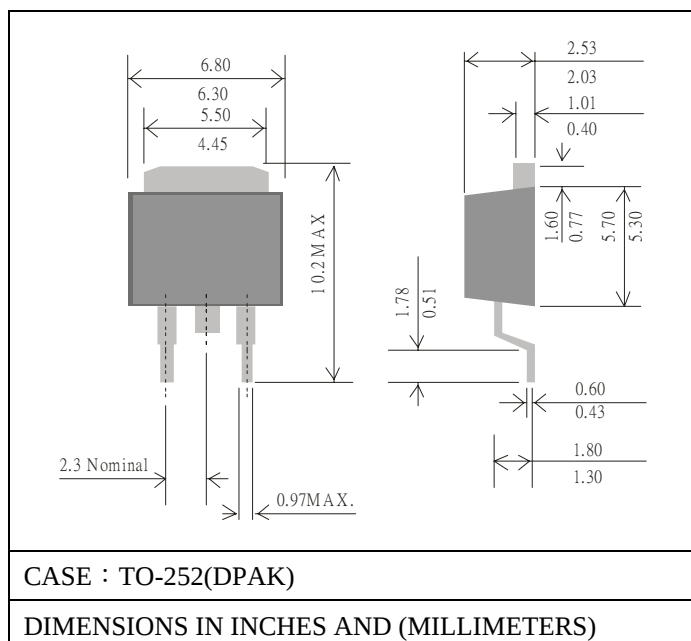
VOLTAGE 20~40 Volts **CURRENT** 10 Ampere

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 : 1.8 GRAMS



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

PARAMETER	SYMBOL	MBRD1020CT	MBRD1030CT	MBRD1040CT	UNITS
MAXIMUM RECURRENT PEAK REVERSE VOLTAGE	V_{RRM}	20	30	40	V
MAXIMUM RMS VOLTAGE	V_{RMS}	14	21	28	V
MAXIMUM DC BLOCKING VOLTAGE	V_{DC}	20	30	40	V
MAXIMUM AVERAGE FORWARD RECTIFIED CURRENT PER LEG (SEE FIG.1)	I_O	10			A
PEAK FORWARD SURGE CURRENT, 8.3ms SINGLE HALF SINE-WAVE SUPERIMPOSED ON RATED LOAD	I_{FSM}	100			A
STORAGE TEMPERATURE RANGE	T_{STG}	-55 TO +150			°C
OPERATING TEMPERATURE RANGE	T_J	-55 TO +125			°C
TYPICAL THERMAL RESISTANCE JUNCTION TO CASE AT 25°C PER LEG	$R_{\theta JC}$	2.43			°C/W

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

PARAMETER	SYMBOL	MBRD1020CT	MBRD1030CT	MBRD1040CT	UNITS
MAXIMUM FORWARD VOLTAGE AT 3A PER LEG	V_F	0.55			V
MAXIMUM DC REVERSE CURRENT PER LEG AT $T_A = 25^\circ\text{C}$	I_R	5.0			mA

NOTES : 1. PULSE TEST: 300μS PULSE WIDTH, 1% DUTY CYCLE

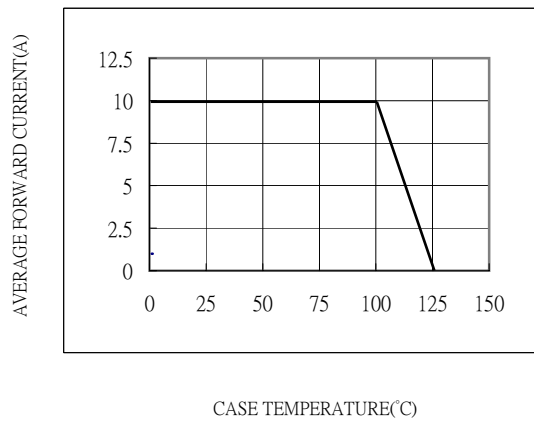


Fig.1-FORWARD CURRENT DERATING CURVE

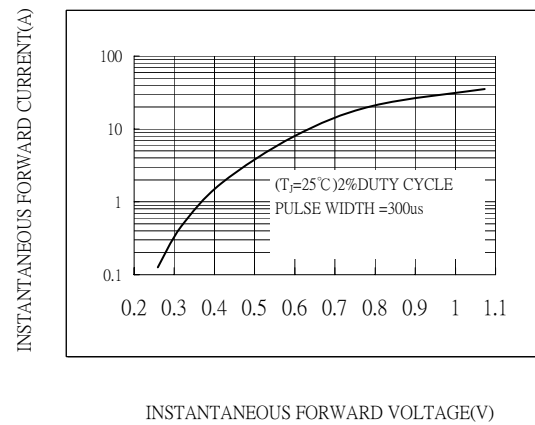


Fig.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

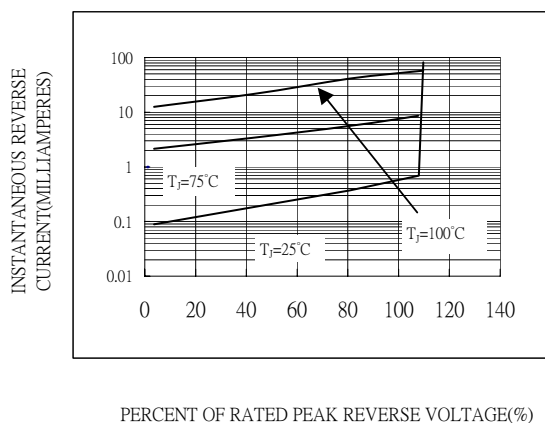


Fig.3-TYPICAL REVERSE CHARACTERISTICS

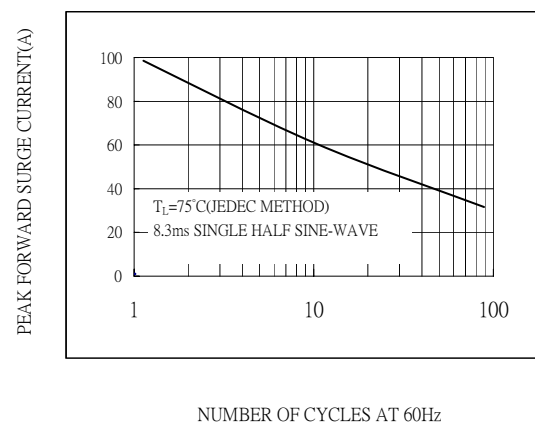


Fig.4-MAXIMUM NON-REPETITIVE PEAK SURGE CURRENT