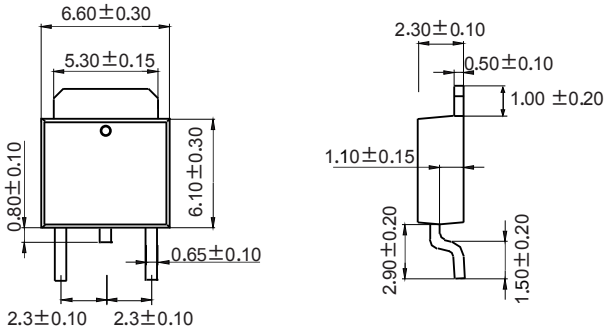
MBR1020DT *THRU* MBR10200DT

10.0Amp Schottky Barrier Rectifiers

TO-252

Features

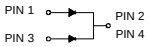
- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- Construction utilizes void-free molded plastic technique
- Low reverse leakage
- High forward surge current capability
- High temperature soldering guaranteed 250℃/10 seconds at terminals



Dimensions in millimeters

Mechanical Data

Case : Molded plastic body
Terminals : Solder plated, solderable per MIL-STD-750,Method 2026
Polarity : Polarity symbol marking on body
Mounting Position : Any



Maximum Ratings And Electrical Characteristics

Ratings at 25℃ ambient temperature unless otherwise specified. Single phase half-wave 60Hz,resistive or inductive load, for capacitive load current derate by 20%.

Parameter	SYMBOLS	MBR 1020DT	MBR 1040DT	MBR 1045DT	MBR 1060DT	MBR 10100DT	MBR 10150DT	MBR 10200DT	UNITS
Maximum repetitive peak reverse voltage	V_{RRM}	20	40	45	60	100	150	200	V
Maximum RMS voltage	V_{RMS}	14	28	31.5	42	70	105	140	V
Maximum DC blocking voltage	V_{DC}	20	40	45	60	100	150	200	V
Maximum average forward rectified current at Tc=100℃ per device / per diode	$I_{(AV)}$	10.0 / 5.0							A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	125.0							A
Maximum instantaneous forward voltage per diode at 5.0A	V_F	0.70			0.80	0.85	0.95		V
Maximum DC reverse current at rated DC blocking voltage T_A =25℃ / T_A=100℃	I_R	0.5 / 50				0.05 / 10			mA
Typical thermal resistance	R_{qJC}	3.0							℃/W
Operating junction temperature range	T_J	-55 to +125				-55 to +150			℃
Storage temperature range	T_{STG}	-55 to +125				-55 to +150			℃

Ratings And Characteristic Curves

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

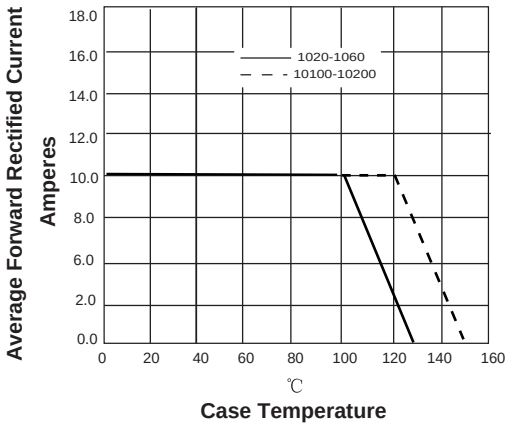


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PERLEG

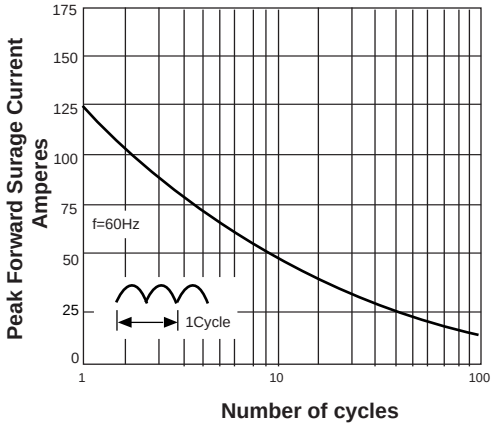


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

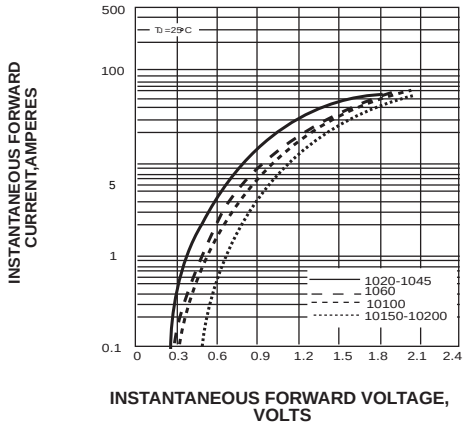


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS