星合电子
XINGHE ELECTRONICS

MBR4030CT THRUMBR40200CT

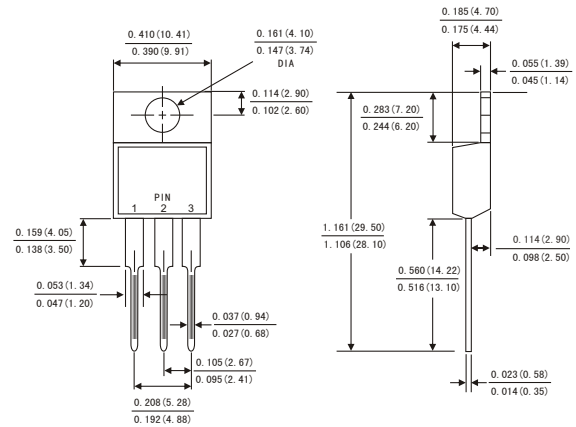
SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 30 to 200 Volts
Forward Current - 40.0Amperes

FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Metal silicon junction ,majority carrier conduction
- Guard ring for overvoltage protection
- Low power loss ,high efficiency
- High current capability ,Low forward voltage drop
- Single rectifier construction
- High surge capability
- For use in low voltage ,high frequency inverters, free wheeling ,and polarity protection applications
- High temperature soldering guaranteed:260℃/10 seconds, 0.25"(6.35mm)from case
- Component in accordance to RoHS 2002/95/EC and WEEE 2002/96/EC

TO-220AB



Dimensions in inches and (millimeters)

MECHANICAL DATA

- *Case*: JEDEC TO-220AB molded plastic body
- *Terminals*: Lead solderable per MIL-STD-750,method 2026
- *Polarity*: As marked
- *Mounting Position*: Any
- *Weight*: 0.08ounce, 2.24 grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(Ratings at 25℃ ambient temperature unless otherwise specified ,Single phase ,half wave ,resistive or inductive load. For capacitive load,derate by 20%.)

	Symbols	MBR 4030CT	MBR 4035CT	MBR 4040CT	MBR 4045CT	MBR 4050CT	MBR 4060CT	MBR 40100CT	MBR 40150CT	MBR 40200CT	Units
Maximum repetitive peak reverse voltage	V_{RRM}	30	35	40	45	50	60	100	150	200	Volts
Maximum RMS voltage	V_{RMS}	21	25	28	32	35	42	70	105	140	Volts
Maximum DC blocking voltage	V_{DC}	30	35	40	45	50	60	100	150	200	Volts
Maximum average forward rectified current(see Fig.1) Per leg	$I_{(AV)}$	20.0									Amps
Maximum average forward rectified current(see Fig.1) Total device		40.0									
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	300.0									Amps
Maximum instantaneous forward voltage at 40.0 A	V_F	0.60				0.75		0.85	0. 95		Volts
Maximum instantaneous reverse current at rated DC blocking voltage(Note 1) T_c=25℃	I_R	0.2									mA
Maximum instantaneous reverse current at rated DC blocking voltage(Note 1) T_c=125℃		30				50					
Typical thermal resistance (Note 2)	$R_{\theta JC}$	3.0									℃/W
Operating junction temperature range	T_J	-65 to+150									℃
Storage temperature range	T_{STG}	-65 to+150									℃

Notes: 1.Pulse test: 300 μ s pulse width,1% duty cycle
2.Thermal resistance from junction to case

FIG.1-FORWARD CURRENT DERATING CURVE

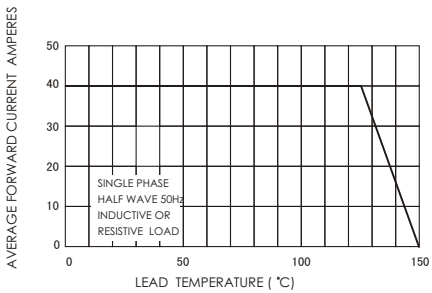


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

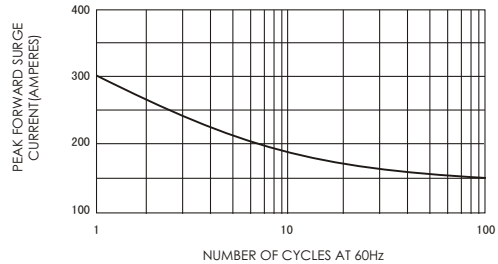


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

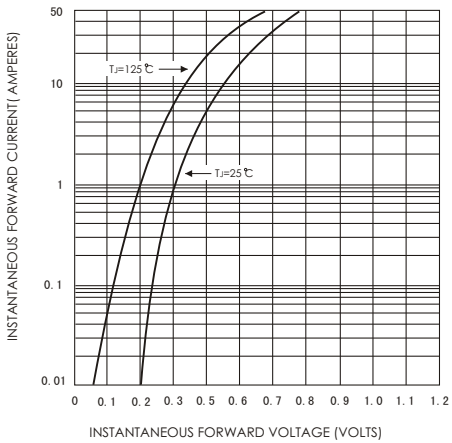


FIG.4-TYPICAL REVERSE CHARACTERISTICS

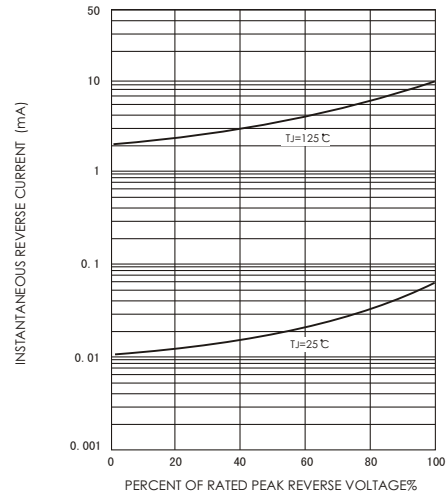


FIG.5-TYPICAL JUNCTION CAPACITANCE

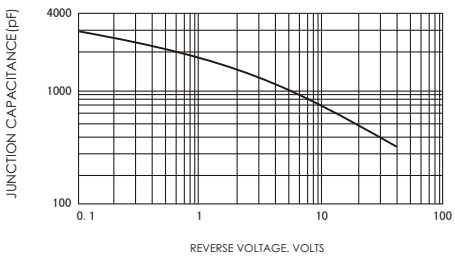


FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE