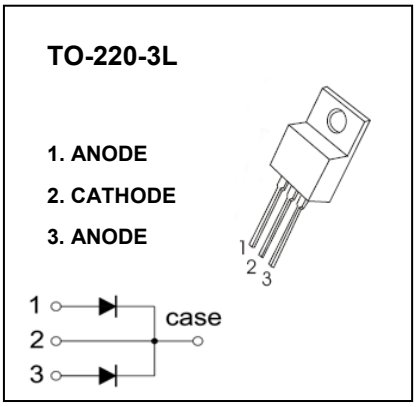
TO-220-3L Plastic-Encapsulate Diodes

MBR4045CT SCHOTTKY BARRIER RECTIFIER



FEATURES

- Schottky Barrier Chip
- Guard Ring Die Construction for Transient Protection
- Low Power Loss,High Efficiency
- High Surge Capability
- High Current Capability and Low Forward Voltage Drop
- For Use in Low Voltage, High Frequency Inverters,Free Wheeling, and Polarity Protection Applications

MAXIMUM RATINGS (T_a=25℃ unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{RRM}	Peak repetitive reverse voltage	45	V
V_{RWM}	Working peak reverse voltage		
V_R	DC blocking voltage		
$V_{R(RMS)}$	RMS reverse voltage	31.5	V
I_O	Average rectified output current	40	A
I_{FSM}	Non-Repetitive peak forward surge current 5μs sine wave	900	A
P_D	Power dissipation	2	W
$R_{\Theta JA}$	Thermal resistance from junction to ambient	50	℃/W
T_j	Junction temperature	125	℃
T_{stg}	Storage temperature	-55~+150	℃

ELECTRICAL CHARACTERISTICS (T_a=25℃ unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Reverse voltage	$V_{(BR)}$	I_R=1mA	45			V
Reverse current	I_R	V_R=45V			1	mA
Forward voltage	$V_{F(1)}$	I_F=20A			0.6	V
	$V_{F(2)}$*	I_F=40A			0.78	
Typical total capacitance	C_{tot}	V_R=5V,f=100KHz to 1MHz		900		pF

*Pulse test