

# MBR520CT~MBR5200CT

## SCHOTTKY BARRIER RECTIFIERS

VOLTAGE	20 to 200 Volts
CURRENT	5 Amperes

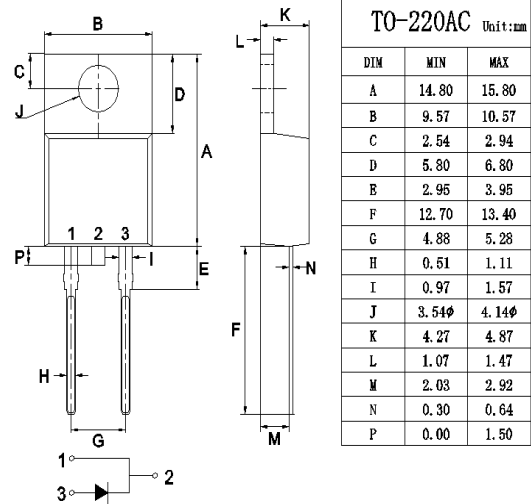
### FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- For through hole applications
- Low profile package
- Built-in strain relief
- Low power loss, High efficiency
- High surge capacity
- For use in low voltage high frequency inverters, free wheeling, and polarity protection applications
- Lead free in comply with EU RoHS

### MECHANICAL DATA

- Case: TO-220AC molded plastic
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: As marking

### TO-220AC



### MAXIMUM RATINGS

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

PARAMETER	SYMBOL	MBR 520CT	MBR 540CT	MBR 545CT	MBR 550CT	MBR 560CT	MBR 580CT	MBR 5100CT	MBR 5150CT	MBR 5200CT	UNITS	
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	20	40	45	50	60	80	100	150	200	V	
Maximum RMS Voltage	$V_{RMS}$	14	28	31.5	35	42	56	70	105	140	V	
Maximum DC Blocking Voltage	$V_{DC}$	20	40	45	50	60	80	100	150	200	V	
Maximum Average Forward (See Figure 1)	$I_{F(AV)}$	5									A	
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load(JEDEC method)	$I_{FSM}$	120									A	
Maximum Forward Voltage at 5.0A per leg	$V_F$	0.60			0.70		0.85	0.90	0.92		V	
Maximum DC Reverse Current at $T_j=25^\circ\text{C}$ Rated DC Blocking Voltage $T_j=100^\circ\text{C}$	$I_R$						0.2 2					mA
Typical Thermal Resistance <small>Note 1</small>	$R_{\theta JC}$						60				$^\circ\text{C} / \text{W}$	
Operating Junction and Storage Temperature Range	$T_j, T_{STG}$	-55 to +125				-55 to +150					$^\circ\text{C}$	

Note 1: Mounted on FR-4 PCB Copper, minimum recommended pad layout

# RATING AND CHARACTERISTIC CURVES

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

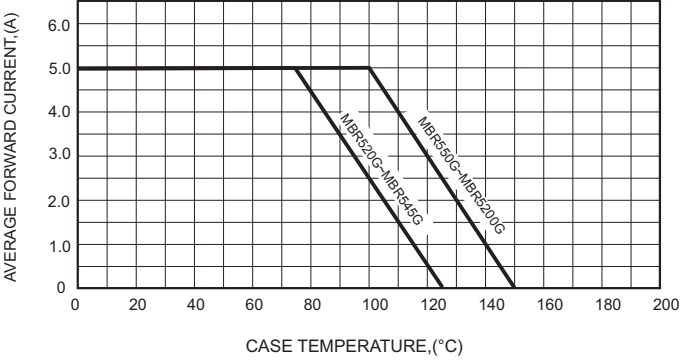


FIG.2-TYPICAL FORWARD CHARACTERISTICS

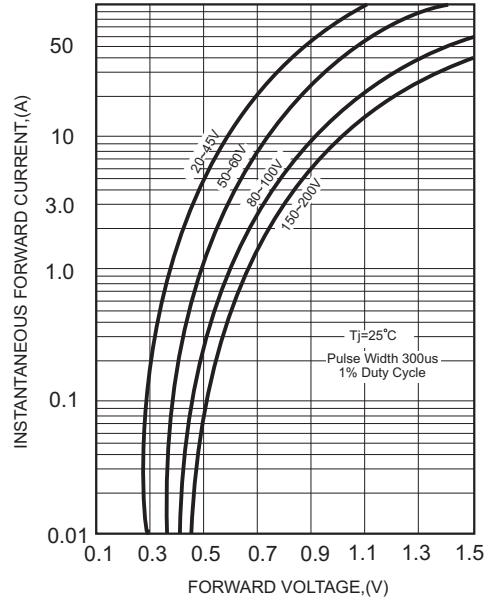


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

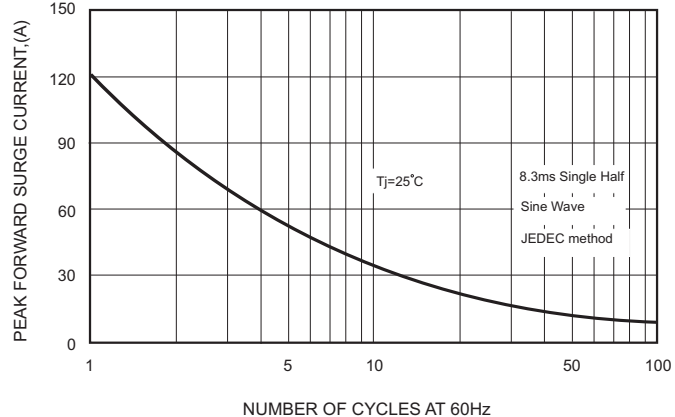


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

