

## SCHOTTKY BARRIER RECTIFIERS

VOLTAGE RANGE: 30 - 100 V  
CURRENT: 30 A

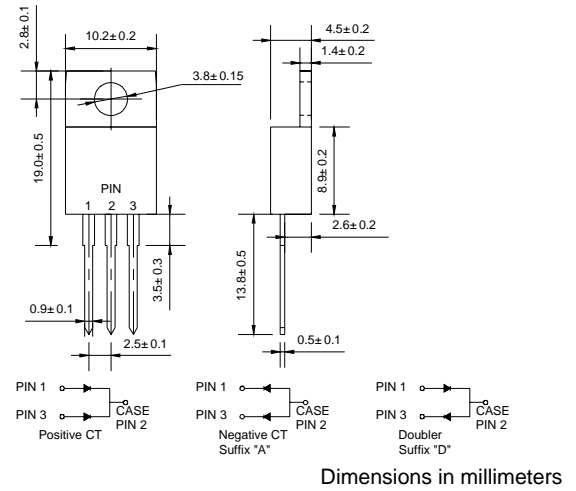
### FEATURES

- ◇ High surge capacity.
- ◇ For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications.
- ◇ Metal silicon junction, majority carrier conduction.
- ◇ High current capacity, low forward voltage drop.
- ◇ Guard ring for over voltage protection.

### MECHANICAL DATA

- ◇ Case: JEDEC TO-220AB, molded plastic body
- ◇ Terminals: Solderable per MIL-STD-750, Method 2026
- ◇ Polarity: As marked
- ◇ Position: Any
- ◇ Weight: 0.071ounce, 2.006 grams

### TO-220AB



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

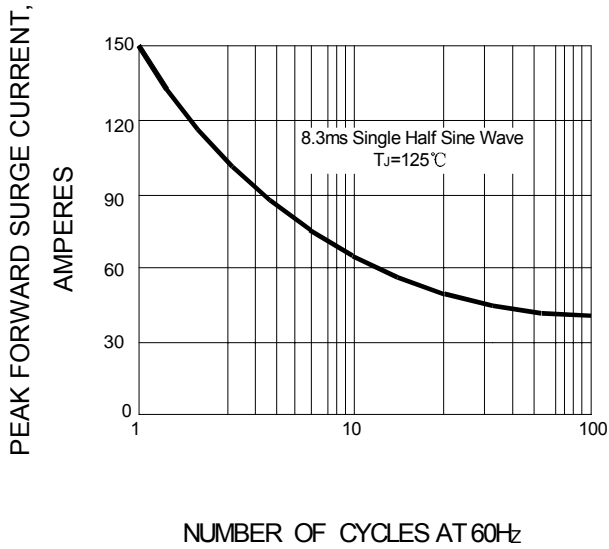
Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

		MBR 2530CT	MBR 2535CT	MBR 2540CT	MBR 2545CT	MBR 2550CT	MBR 2560CT	MBR 2580CT	MBR 25100CT	UNITS
Maximum recurrent peak reverse voltage	$V_{RRM}$	30	35	40	45	50	60	80	100	V
Maximum RMS Voltage	$V_{RMS}$	21	25	28	32	35	42	56	70	V
Maximum DC blocking voltage	$V_{DC}$	30	35	40	45	50	60	80	100	V
Maximum average forward total device rectified current @ $T_C = 130^\circ\text{C}$	$I_{F(AV)}$	30								A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$	150								A
Maximum forward voltage (Note 1)	$V_F$	-				0.75	0.65	0.85		V
		-				-	-	-		
		0.82				-	-	-		
		0.73				-	-	-		
Maximum reverse current at rated DC blocking voltage	$I_R$	0.2				1.0				mA
		40				50				
Maximum thermal resistance (Note 2)	$R_{\theta JC}$	1.5								°C/W
Operating junction temperature range	$T_J$	- 55 ---- + 150								°C
Storage temperature range	$T_{STG}$	- 55 ---- + 150								°C

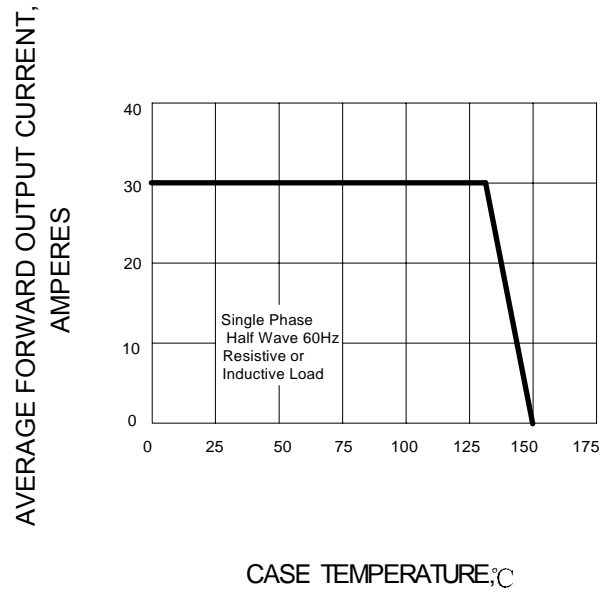
NOTE: 1. Pulse test: 300µs pulse width, 1% duty cycle.

2. Thermal resistance from junction to case.

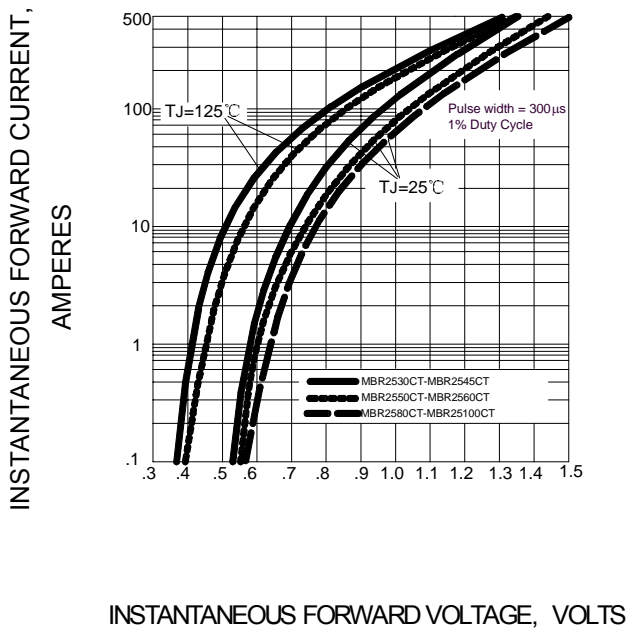
**FIG.1 – PEAK FORWARD SURGE CURRENT**



**FIG.2 – FORWARD DERATING CURVE**



**FIG.3 – TYPICAL FORWARD CHARACTERISTIC**



**FIG.4 – TYPICAL REVERSE CHARACTERISTIC**

