

## Schottky Rectifier

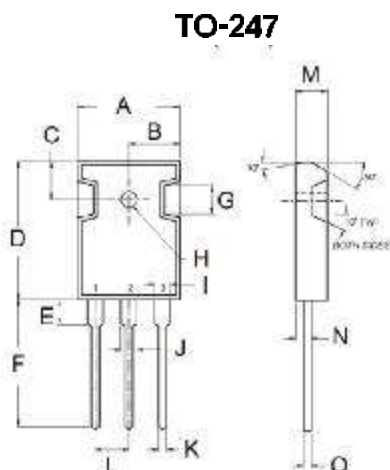
### ■ Features

- $I_o$  30A
- $V_{RRM}$  40V-200V
- High surge current capability
- Cases: Molded plastic

### ■ Applications

- Rectifier

### Outline Dimensions and Mark



DIM.	Unit (mm)		Unit (inch)	
	Min	Max	Min	Max
A	15.90	16.40	0.626	0.646
B	7.90	8.20	0.311	0.323
C	5.70	6.20	0.224	0.244
D	20.80	21.30	0.819	0.839
E	3.50	4.10	0.138	0.161
F	19.70	20.20	0.776	0.795
G	-	4.30	-	0.169
H	2.90	3.40	0.114	0.134
I	1.53	2.18	0.075	0.085
J	2.97	3.22	0.117	0.127
K	1.00	1.40	0.039	0.055
L	5.20	5.70	0.205	0.224
M	4.90	5.16	0.193	0.203
N	2.70	3.00	0.106	0.119
O	0.51	0.75	0.020	0.030

### ■ Limiting Values (Absolute Maximum Rating)

Item	Symbol	Unit	Test Conditions	MBR30XX-PT							
				40	45	50	60	80	100	150	200
Repetitive Peak Reverse Voltage	$V_{RRM}$	V		40	45	50	60	80	100	150	200
Average Forward Current	$I_{F(AV)}$	A	60HZ Half-sine wave, Resistance load $T_c$ (Fig 1)	30.0							
Surge(Non-repetitive)Forward Current	$I_{FSM}$	A	60Hz Half-sine wave, 1 cycle, $T_a=25^\circ\text{C}$	200							
Junction Temperature	$T_J$	$^\circ\text{C}$		-65~+150							
Storage Temperature	$T_{STG}$	$^\circ\text{C}$		-65 ~ +150							

### ■ Electrical Characteristics ( $T_a=25^\circ\text{C}$ Unless otherwise specified)

Item	Symbol	Unit	Test Condition	MBR30XX-PT							
				40	45	50	60	80	100	150	200
Peak Forward Voltage	$V_F$	V	$I_F=15.0\text{A}$	0.7		0.75		0.85		0.95	
Peak Reverse Current	$I_{RRM1}$	mA	$V_{RM}=V_{RRM}$	$T_a=25^\circ\text{C}$							
	$I_{RRM2}$			$T_a=125^\circ\text{C}$							
Thermal Resistance(Typical)	$R_{\theta JC}$	$^\circ\text{C/W}$	Between junction and case	1.4 <sup>1)</sup>							

**Notes:** 1) Thermal resistance from junction to case per leg with heat-sink size of 2"×3"×0.25" AL-plate

■ **Characteristics(Typical)**

FIG.1: FORWARD CURRENT DERATING CURVE

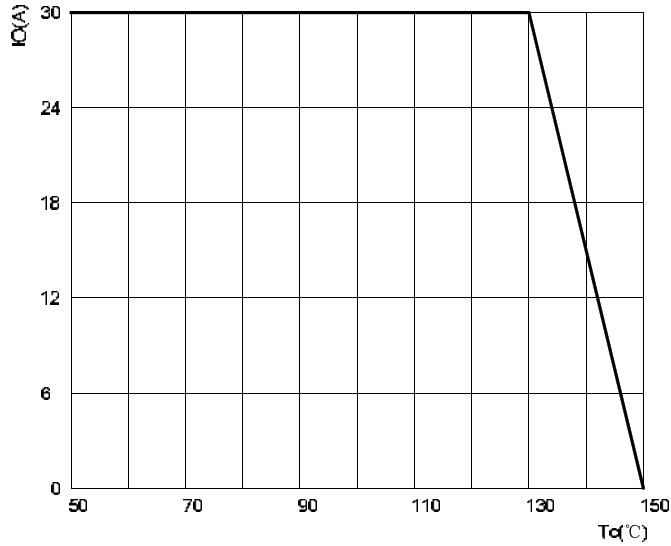


FIG.2: MAXIMUM NON-REPETITIVE FORWARD URGE CURRENT

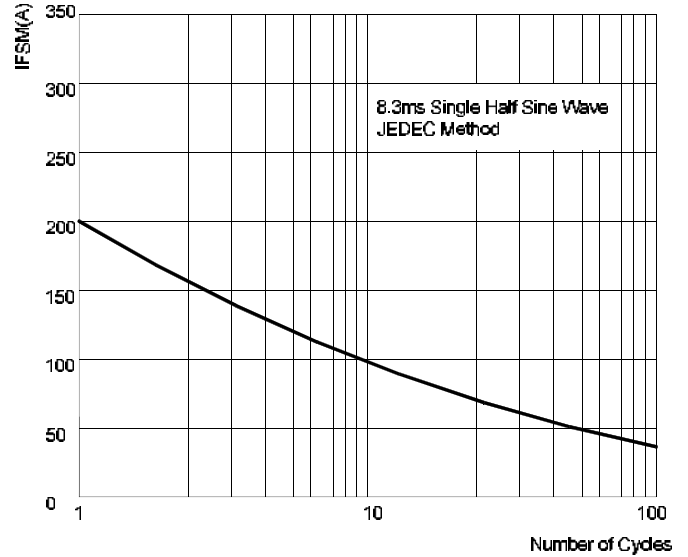


FIG3: Instantaneous Forward Voltage

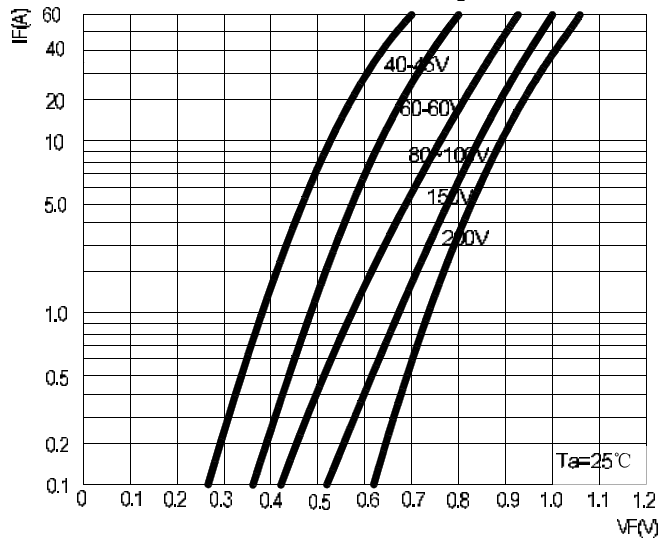


FIG4: Typical Reverse Characteristics

