



# MBRF3045CT

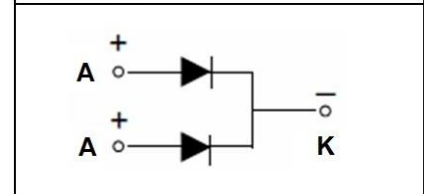
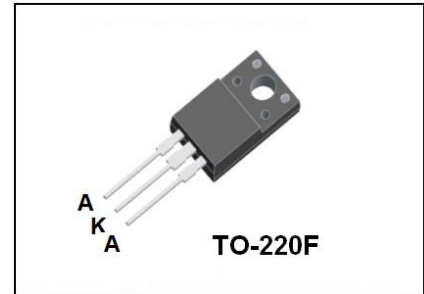
## Dual High Voltage Schottky Rectifier

### ● Features:

- Common Cathode Structure
- Low Power Loss and High Efficiency
- Low Forward Voltage Drop
- High Surge Capability

### ● Application:

- High Frequency Switch
- Free Wheeling, and Polarity Protection Applications



### Absolute Maximum Ratings (T<sub>c</sub>=25°C unless otherwise noted)

Symbol	Parameter	Value	Unit
V <sub>RRM</sub>	Maximum Repetitive Reverse Voltage	45	V
V <sub>R</sub>	Maximum DC Reverse Voltage	45	V
I <sub>F(AV)</sub>	Average Rectified Forward Current, T <sub>c</sub> =120°C	15(Per Leg) 30(Per Device)	A
I <sub>FSM</sub>	Peak Forward Surge Current, 8.3ms Half Sine wave	230	A
T <sub>j</sub>	Operating Junction Temperature	150	°C
T <sub>stg</sub>	Storage Temperature Range	-55 to +150	°C

### Thermal Characteristics (T<sub>c</sub>=25°C unless otherwise noted)

Symbol	Parameter	Max	Unit
R <sub>θJC</sub>	Thermal Resistance, Junction to Case Per Leg	3.2	°C / W

### Electrical Characteristics (T<sub>c</sub>=25°C unless otherwise noted)

Symbol	Parameter	Test Conditions	Min	Max	Unit
V <sub>RRM</sub>	Maximum Repetitive Reverse Voltage	I <sub>R</sub> =250μA	45		V
I <sub>R</sub>	Reverse Current	V <sub>R</sub> =45V T <sub>c</sub> =25°C V <sub>R</sub> =45V T <sub>c</sub> =125°C		0.3 60	mA
V <sub>F</sub>	Forward Voltage	I <sub>F</sub> =15A T <sub>c</sub> =25°C I <sub>F</sub> =15A T <sub>c</sub> =125°C I <sub>F</sub> =30A T <sub>c</sub> =25°C I <sub>F</sub> =30A T <sub>c</sub> =125°C		0.74 0.69 0.84 0.79	V

V<sub>F</sub> Typical Values: 0.64V@ I<sub>F</sub>=15A, T<sub>c</sub>=25°C

### Typical Performance Characteristics

Figure 1. Forward Current Characteristics

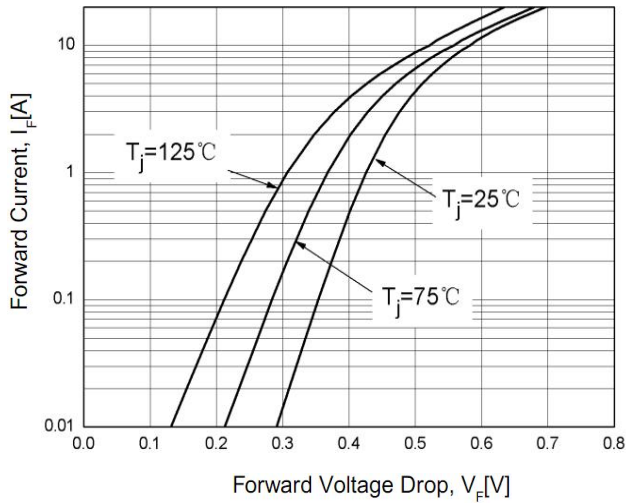


Figure 2. Reverse Leakage Current

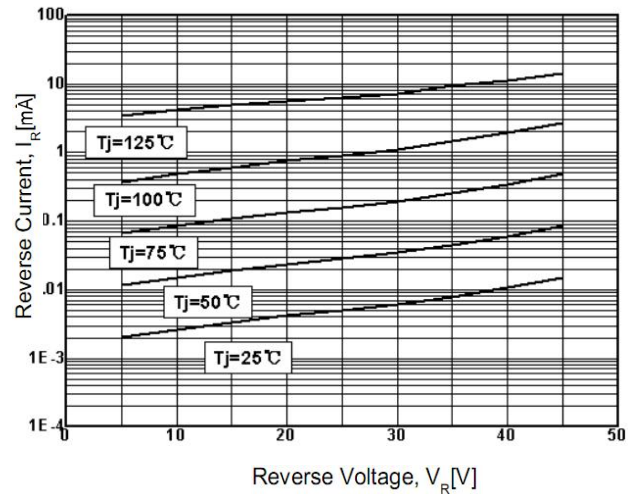


Figure 3. Junction Capacitance

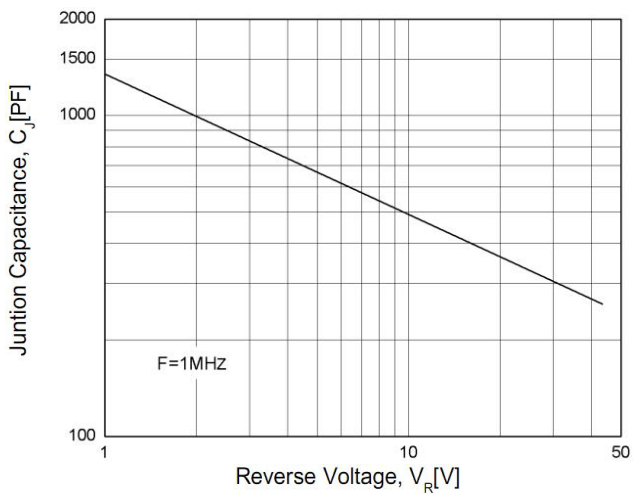
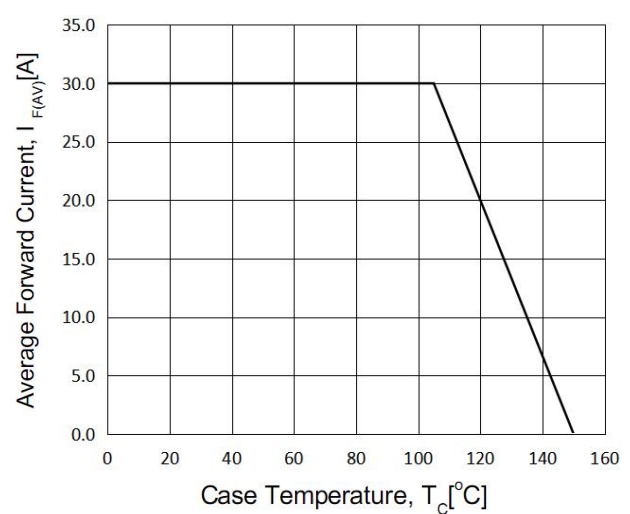


Figure 4. Power Derating



**TO-220F Package Dimensions**

UNIT: mm

SYMBOL	min	nom	max	SYMBOL	min	nom	max
A	9.80		10.60	D		2.54	
A1		7.00		D1	1.15		1.47
A2	2.90		3.40	D2	0.60		0.90
A3	9.10		9.90	D3	0.20		0.50
B1	15.40		16.40	E	2.24		2.84
B2	4.35		4.95	E1		0.70	
B3	6.00		7.40	E2		1.0 × 45°	
C	3.00		3.70	E3	0.35		0.65
C1	15.00		17.00	E4	2.30		3.30
C2	8.80		10.80	$\alpha$ (度)		30°	
C3	2.60		3.60				

