

# MBR(D/F)3045CT

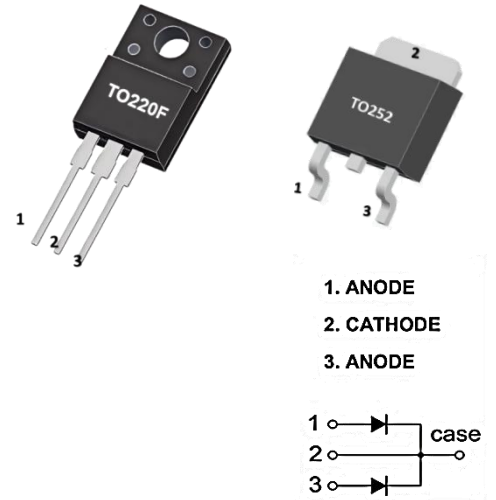
## SCHOTTKY BARRIER RECTIFIER

### APPLICATIONS

The MBR(D/F)3045CT meet the ROHS and Green Product requirement with full function reliability approved.

### FEATURE

- \* Low Power Loss,High Efficiency
- \*Guard Ring Die Construction for Transient Protection
- \* High Current Capability and Low Forward Voltage Drop



### MARKING(The image is for reference only. Please take the actual product as the standard)



MBR(D/F)3045CT=Device Code

XXXX(X)=Date Code

Solid Dot=Green molding compound

### ABSOLUTE MAXIMUM RATINGS(TA=25°C, unless otherwise specified.)

SYMBOL	PARAMETER	VALUE	UNIT	
VRRM	Peak repetitive reverse voltage	45	V	
VRWM	Working peak reverse voltage			
VR	DC blocking voltage			
VR(RMS)	RMS reverse voltage	31.5	V	
IO	Average rectified output current	30(15*2)	A	
IFSM	Non-Repetitive peak forward surge current (8.3ms half sine wave)	200*2	A	
RθJc	Thermal resistance from junction to case ,Tc=25°C	TO-252	2.0	°C/W
		TO-220F	3.0	
RθJA	Thermal resistance from junction to ambient	TO-252	62.5	°C/W
		TO-220F	62.5	
Tj	Junction temperature	150	°C	
Tstg	Storage temperature	-55~+150	°C	

Notes:Absolute maximum ratings are those values beyond which the device could be permanently damaged. Absolute maximum ratings are stress ratings only and functional device operation is not implied.



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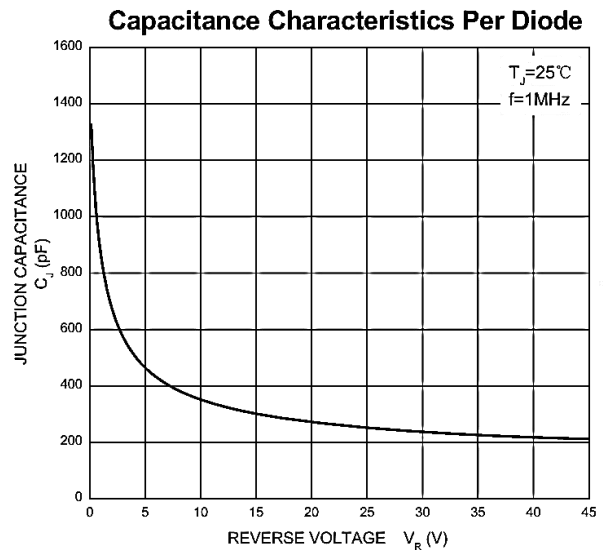
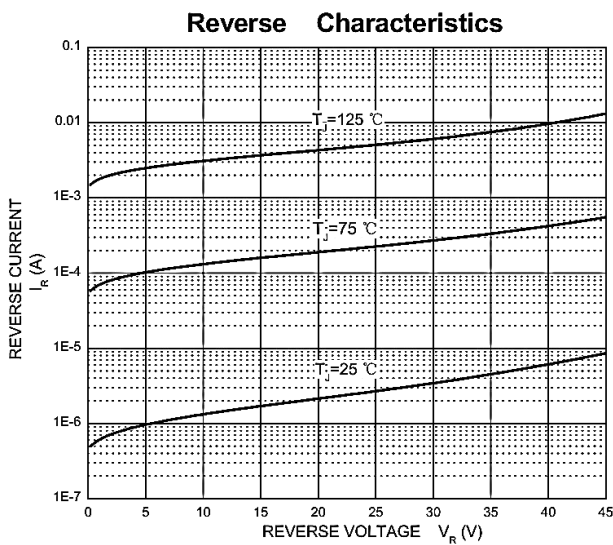
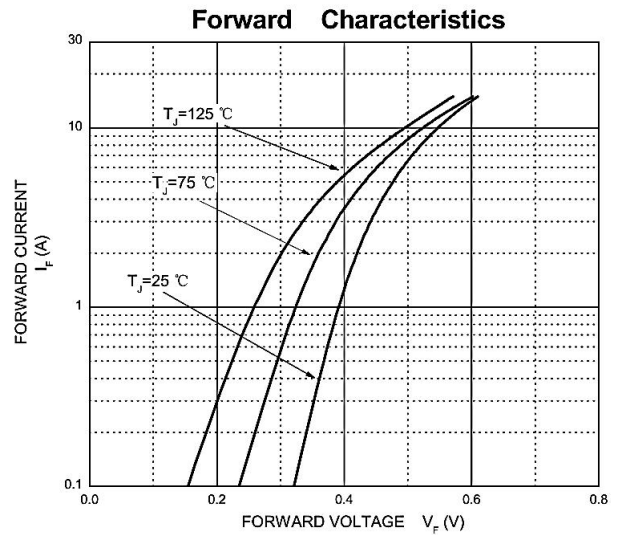
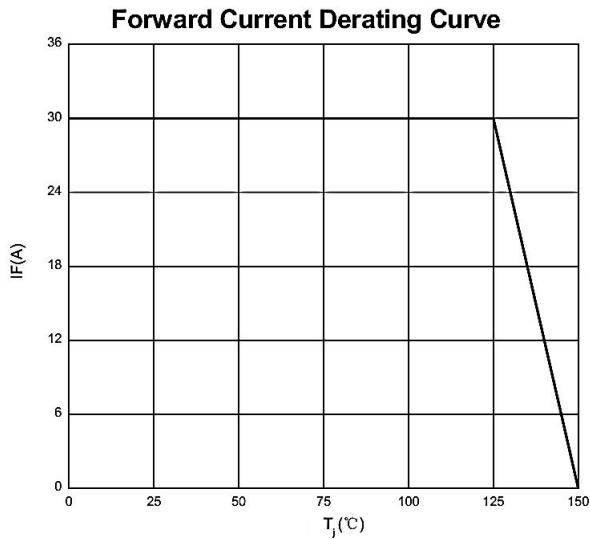
## SCHOTTKY BARRIER RECTIFIER

### ELECTRICAL CHARACTERISTICS (TA=25°C, unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Reverse voltage	V(BR)	IR=0.2mA	45			V
Reverse current	IR	VR=45V	Tj =25°C		200	uA
			Tj =125°C		23	mA
Forward voltage	VF	IF=10A	Tj =25°C		0.7	V
			Tj =125°C		0.37	V
		IF=15A	Tj =25°C		0.80	V
			Tj =125°C		0.44	V

Pulse test: pulse width ≤300μs, duty cycle≤ 2.0%.

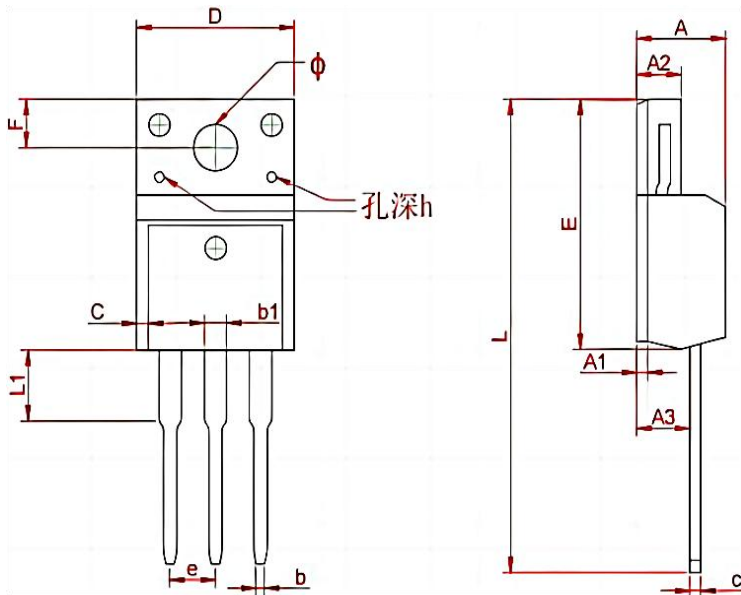
### TYPICAL CHARACTERISTICS



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## TO - 220F Package Outline Dimensions



Symbol	Dimensions In Millimeters	
	Min	Max
A	4.300	4.750
A1	0.7 REF	
A2	2.300	2.850
A3	2.500	2.900
b	0.380	0.420
b1	1.220	1.280
C	1.08	1.200
c	0.480	0.520
D	10.15	10.450
E	15.700	15.950
e	2.574 TYP	
F	3.470 REF	
y	3.200 REF	
h	0.000	0.800
L	28.780	28.900
L1	2.990	3.100

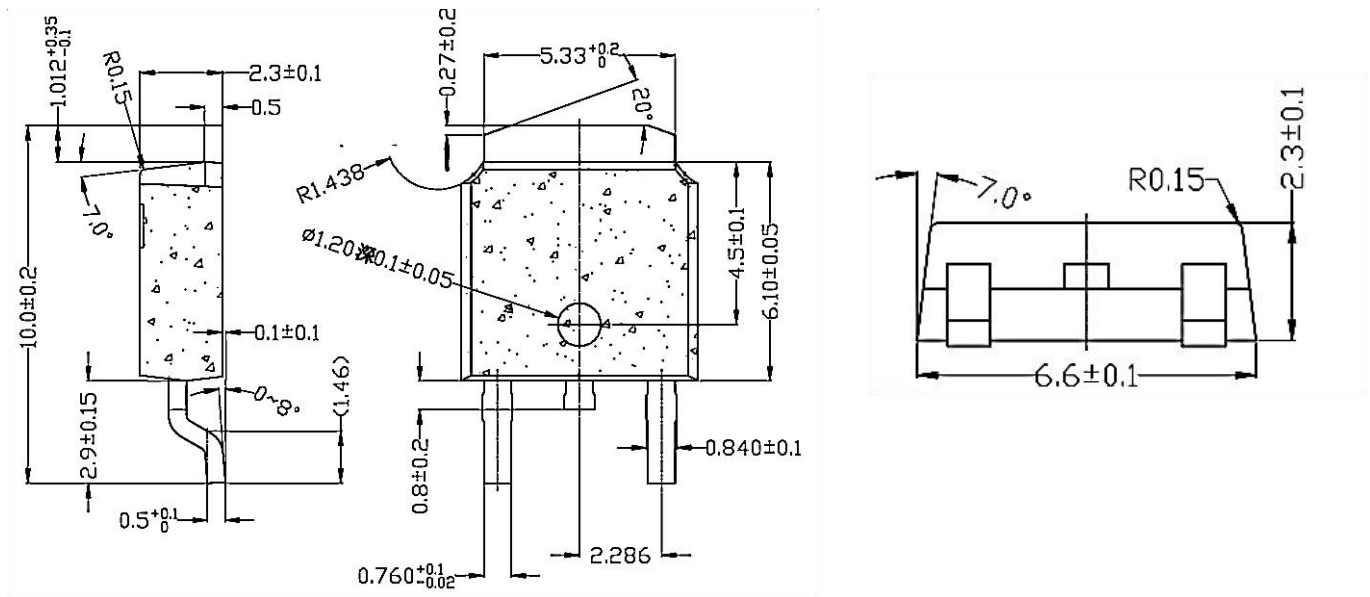
## TO - 220F Packing Information

Package version	Tube dimensions LxWxH (mm)	Per Tube (pcs)	Tube per box	Inner box dimensions LxWxH (mm)	PCS/ Inner box	Outer box dimensions LxWxH(mm)	PCS/ Outer box
TO-220F	530*32*7	50	20	580*155*50	1000	602*277*188	5000

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## TO - 252 Package Outline Dimensions



## TO - 252 Packing Information

Package version	Reel dimensions $\phi \times H$ (mm)	Per Reel (pcs)	Reels per box	Inner box dimensions $L \times W \times H$ (mm)	Outer box (pcs)	Outer box dimensions $L \times W \times H$ (mm)
TO-252	$\phi 330 \times 20$	2500	2	360*340*50	25000	375*375*280