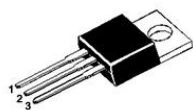
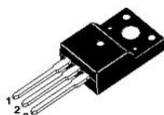


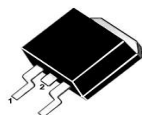
## SCHOTTKY BARRIER RECTIFIER



TO-220AB/MBR10200CT



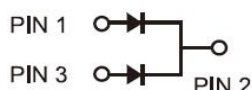
TO-220F/MBRF10200CT



TO-263/MBRB10200VT



TO-252/MBRD10200CT



### FEATURES

- Low forward voltage
- High current capability
- High forward surge capability
- Low power losses, High efficiency
- Guarding for over voltage protection



### APPLICATIONS

Low VF Schottky barrier rectifier are designed for high frequency, miniature switched mode power supplies such as adapters ,lighting and on-board DC/DC conerters

### Primary Characteristic

$I_O$	2*5A
$V_{RRM}$	200V
$I_{FSM}$	130A
$V_F$	0.72V
$T_{j,max}$	150°C
Assembly code	AE

### MECHANICAL DATA

- **Case:** Molded plastic
- **Polarity:** As marked
- **Mounting Position:** Any
- **Molded Plastic:** UL Flammability Classification Rating 94V-0
- Lead free in compliance with EU RoHS 2011/65/EU directive
- Solder bath temperature 275°C maximum,10s per JESD 22-B106

### Maximum Ratings (Per Leg) at $T_a=25^\circ\text{C}$ unless otherwise specified

Characteristics	Symbol	Value	Unit
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	200	V
Working Peak Reverse Voltage	$V_{RWM}$	200	V
Maximum DC Blocking Voltage	$V_{DC}$	200	V
Maximum Average Forward Rectified Current	Per Leg	5	A
	Total	10	
Peak Forward Surge Current,8.3 ms Single Half Sine-wave	$I_{FSM}$	130	A
Operating Temperature Range	$T_J$	150	°C
Storage Temperature Range	$T_{STG}$	-40 to +150	°C
Typical Thermal Resistance (Note1)	$R_{\theta JC}$	2	°C/W
TO-220AB,TO-263,TO-252			
TO-220F		4	

Note1: Thermal resistance from Junction to case per leg mounted on heatsink.

### Electrical Characteristics (Per Leg) unless otherwise specified

Characteristics	Symbol	Value		Unit
Forward Voltage Drop(Note2)		Typ.	Max.	V
at $I_F=2A$		$T_A=25^\circ\text{C}$	0.77	-
		$T_A=125^\circ\text{C}$	0.63	-
at $I_F=3A$		$T_A=25^\circ\text{C}$	0.80	-
		$T_A=125^\circ\text{C}$	0.67	-
at $I_F=5A$		$T_A=25^\circ\text{C}$	0.85	0.92
		$T_A=125^\circ\text{C}$	0.72	-
Maximum Reverse Current at $V_R=200V$	$I_R$	$T_A=25^\circ\text{C}$	1	5
		$T_A=125^\circ\text{C}$	0.5	-
				$\mu\text{A}$
				mA

Note2:Pulse test: 300  $\mu\text{s}$  pulse width, 1 % duty cycle

## RATINGS AND CHARACTERISTIC CURVES

FIG.1 MAXIMUM FORWARD CURRENT DERATING CURVE

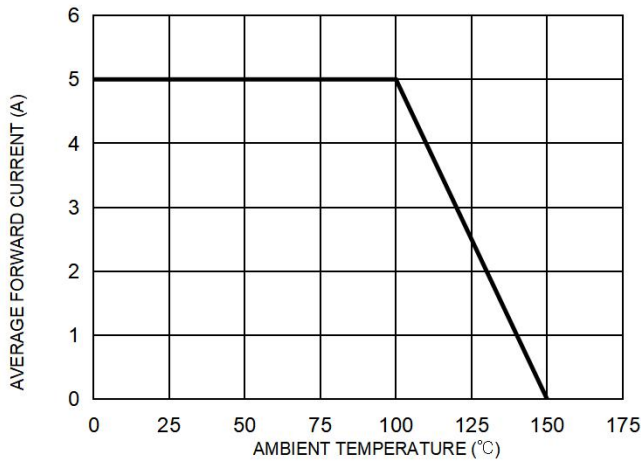


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

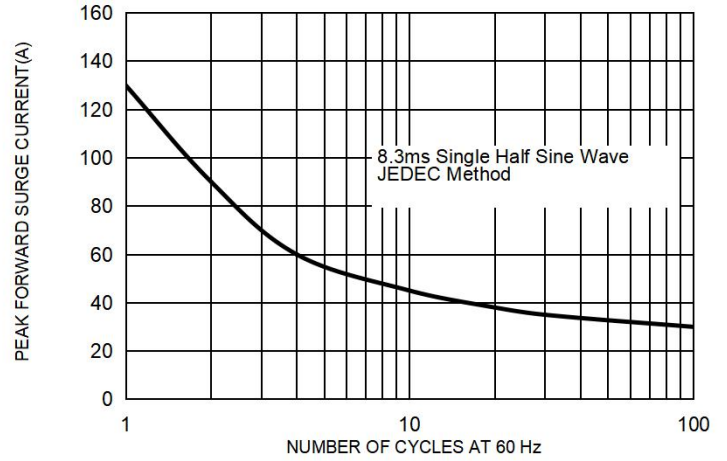


FIG. 3 TYPICAL FORWARD CHARACTERISTICS PER LEG

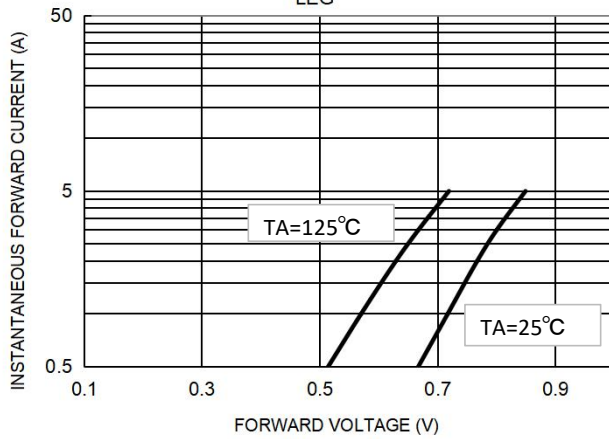
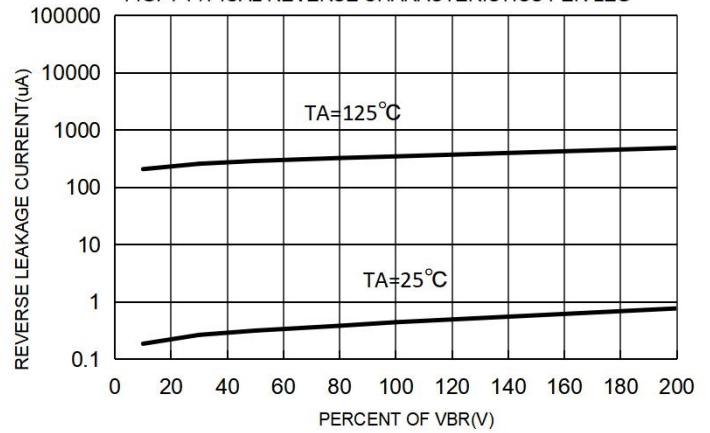
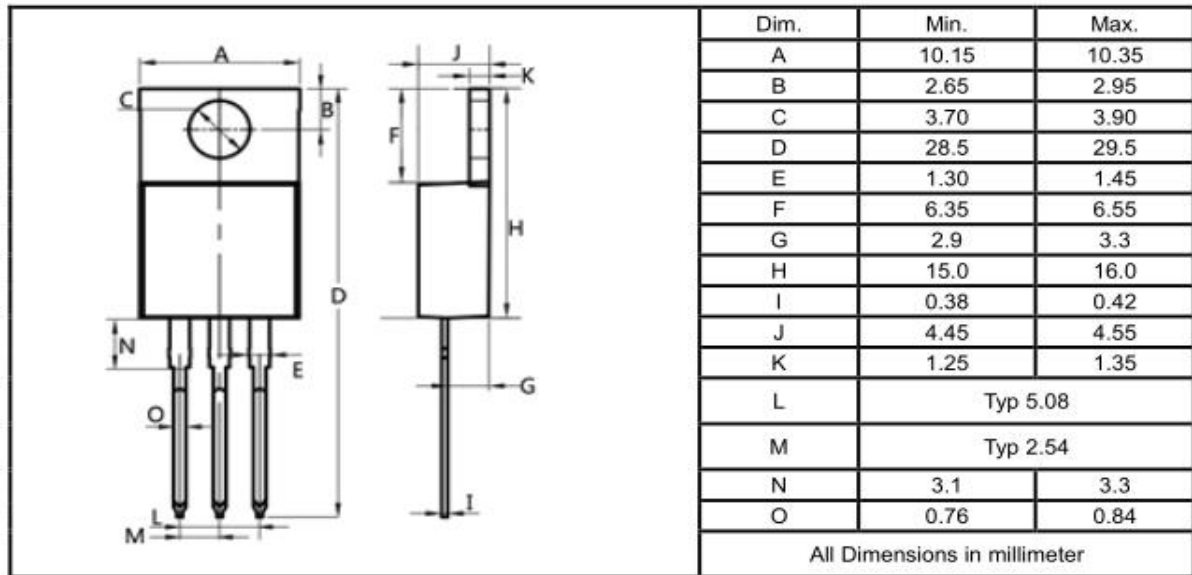


FIG. 4 TYPICAL REVERSE CHARACTERISTICS PER LEG

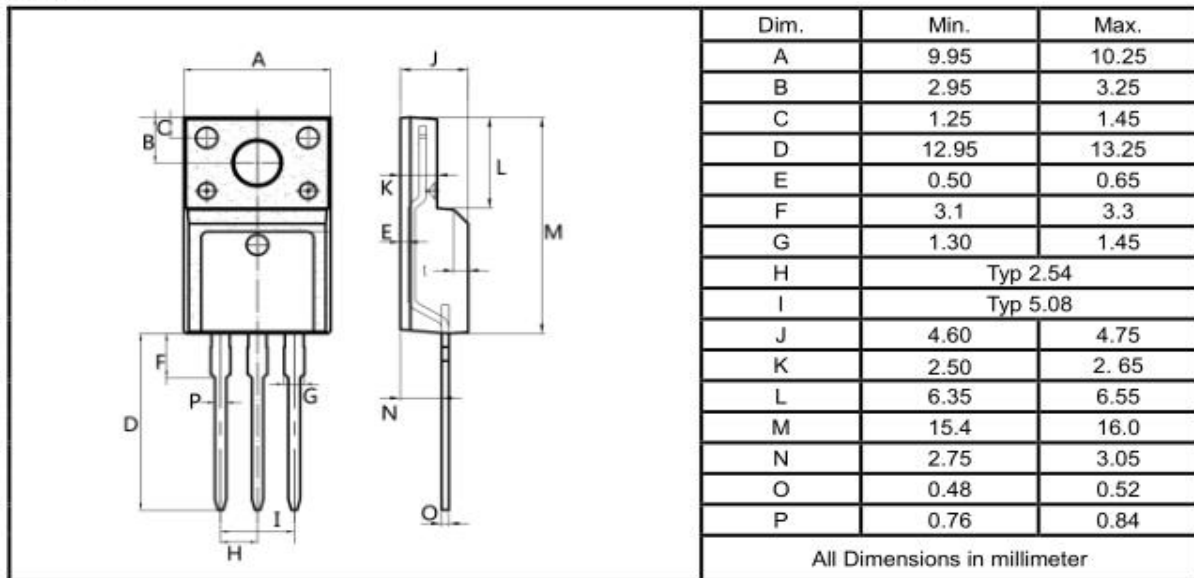


## Package Outline Dimensions millimeters

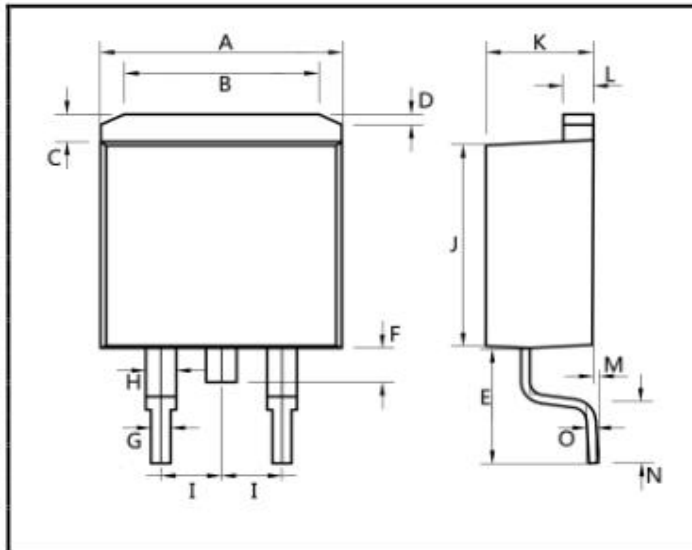
**TO-220AB**



**TO-220F**



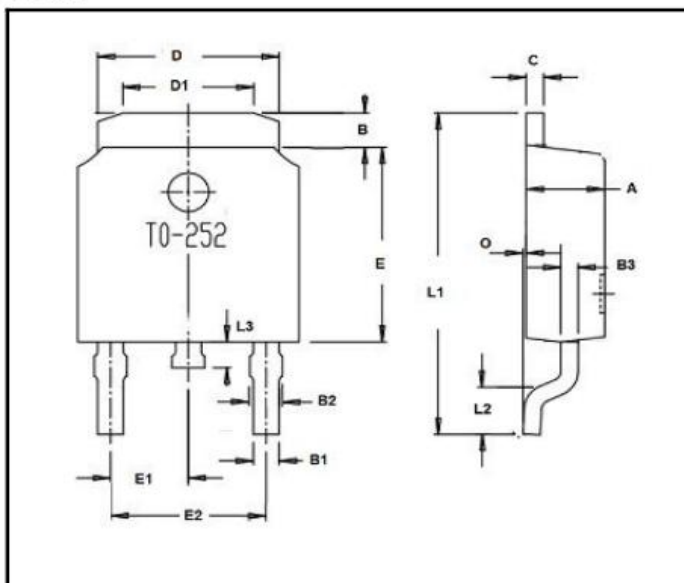
## TO-263



Dim.	Min.	Max.
A	10.1	10.2
B	7.4	7.6
C	1.3	1.5
D	0.55	0.75
E	5.0	6.0
F	1.4	1.6
G	0.78	0.86
H	1.2	1.3
I	Typ 2.54	
J	8.4	8.6
K	4.45	4.55
L	1.25	1.35
M	0.02	0.1
N	2.4	2.8
O	0.36	0.40

All Dimensions in millimeter

## TO-252



Dim.	Min.	Max.
A	2.15	2.45
B	0.96	1.42
C	Typ0.5	
D	5.33	5.53
D1	3.65	4.05
E	6.0	6.2
E1	Typ2.29	
E2	Typ4.58	
B1	0.74	0.86
B2	0.74	0.94
O	0	0.15
L1	9.9	10.5
L2	Typ1.65	
L3	0.6	1.0

All Dimensions in millimeter