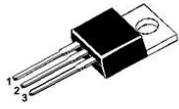
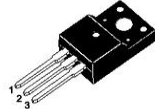


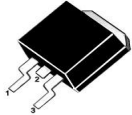
## LOW VF SCHOTTKY RECTIFIER



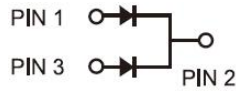
TO-220AB/MBR



ITO-220/MBRF



TO-263/MBRS



## FEATURES

Lead Free Package and Finish

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

## 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*10A
$V_{RRM}$	300V
$I_{FSM}$	120A
$V_F$	0.78V
$T_{jmax}$	175°C

## 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-

## Maximum Ratings (Per Leg) at Ta=25°C unless otherwise specified

Characteristics	Symbol	Value	Unit
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	300	V
Working Peak Reverse Voltage	$V_{RWM}$	300	V
Maximum DC Blocking Voltage	$V_{DC}$	300	V
Maximum Average Forward Rectified Current	$I_O$	10	A
Per Leg		20	
Total			
Peak Forward Surge Current,8.3 ms Single Half Sine-wave	$I_{FSM}$	120	A
Operating Temperature Range	$T_J$	-50 to +175	°C
Storage Temperature Range	$T_{STG}$	-50 to +175	°C
Typical Thermal Resistance (Note1)	$R_{\theta JC}$	2	°C/W
TO-220AB,TO-263		4	
ITO-220			

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)		V <sub>F</sub>	Typ.	Max.	V
at I <sub>F</sub> =5A	TA=25°C		0.78	0.84	
	TA=125°C		0.65	-	
at I <sub>F</sub> =10A	TA=25°C		0.82	0.86	
	TA=125°C		0.70	-	
at I <sub>F</sub> =15A	TA=25°C		0.92	1.00	
	TA=125°C		0.78	-	
Maximum Reverse Current at V <sub>R</sub> =300V	TA=25°C	I <sub>R</sub>	0.2	1	μA
	TA=125°C		10	-	mA

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

## RATINGS AND CHARACTERISTIC CURVES

FIG.1 MAXIMUM FORWARD CURRENT DERATING CURVE

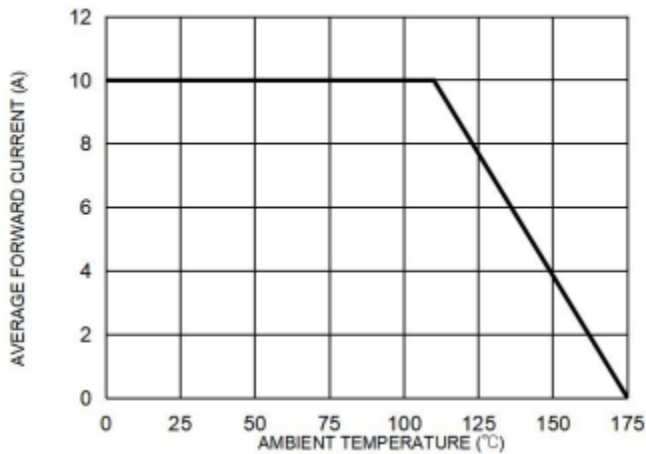


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

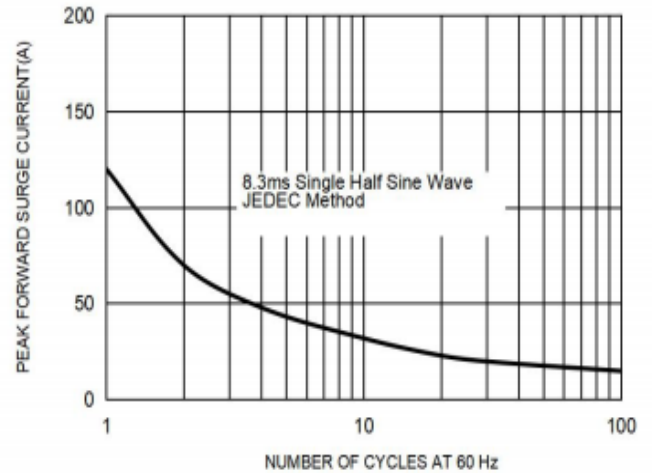


FIG. 3 TYPICAL FORWARD CHARACTERISTICS PER LEG

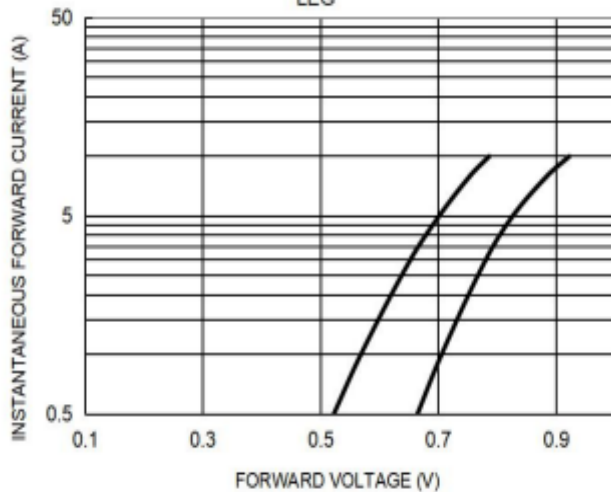
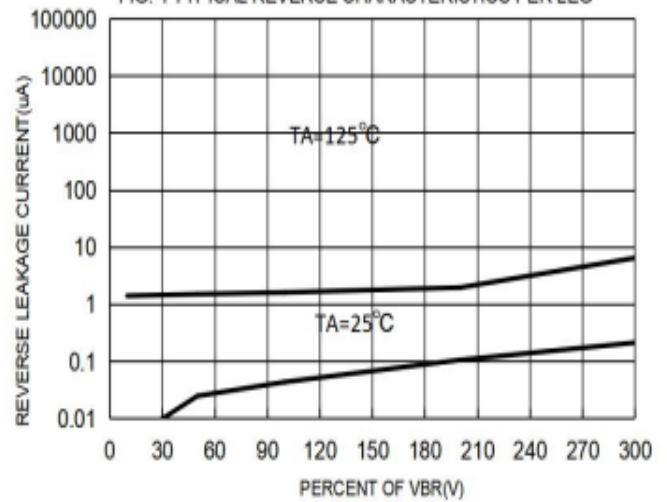
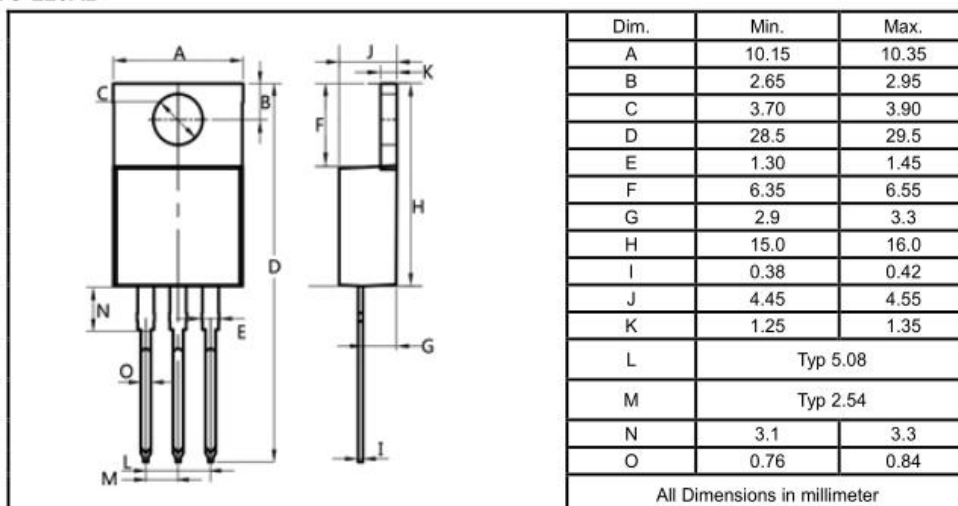


FIG. 4 TYPICAL REVERSE CHARACTERISTICS PER LEG

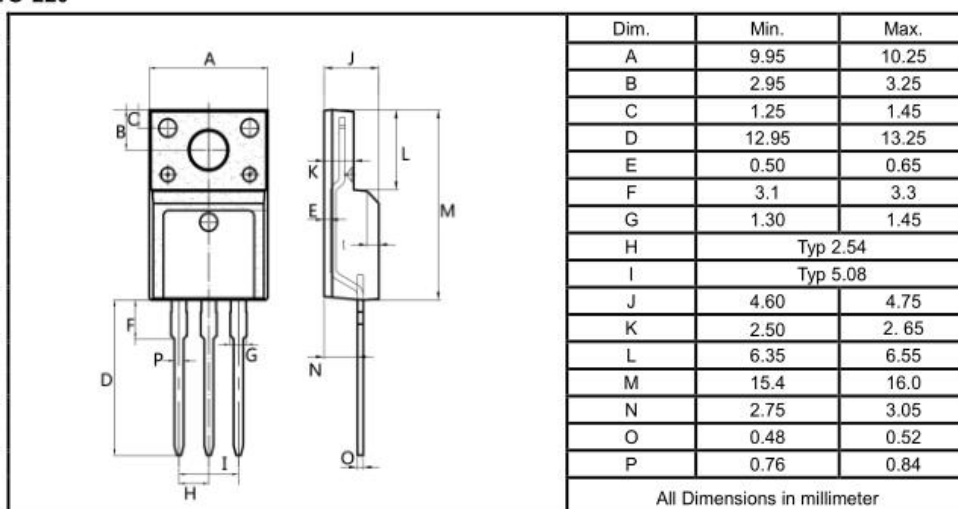


## Package Outline Dimensions millimeters

TO-220AB



ITO-220



TO-263

