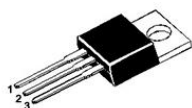


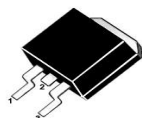
SCHOTTKY BARRIER RECTIFIER



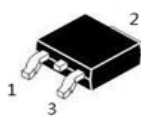
TO-220AB/MBR20100CT



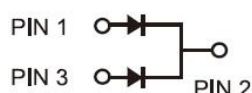
TO-220F/MBRF20100CT



TO-263/MBRB20100CT



TO-252/MBRD20100CT



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*10A
V_{RRM}	100V
I_{FSM}	250A
V_F	0.68V
$T_{j,max}$	150°C
Assembly code	AL

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 Ta=25°C unless otherwise specified

Characteristics	Symbol	Value	Unit
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	100	V
Working Peak Reverse Voltage	V_{RWM}	100	V
Maximum DC Blocking Voltage	V_{DC}	100	V
Maximum Average Forward Rectified Current	Per Leg	10	A
	Total	20	
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave	I_{FSM}	250	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)	V_F	Typ.	Max.	V	
		at $I_F=3A$	0.69		-
		TA=25°C	0.60		-
		TA=125°C	0.74		-
		at $I_F=5A$	0.61		-
		TA=25°C	0.82		0.85
Maximum Reverse Current at $V_R=100V$	I_R	TA=25°C	1.5	10	
		TA=125°C	1	-	
				μA	
				mA	

Note2: Pulse test: 300 μs pulse width, 1 % duty cycle

RATINGS AND CHARACTERISTIC CURVES

FIG.1 MAXIMUM FORWARD CURRENT DERATING CURVE

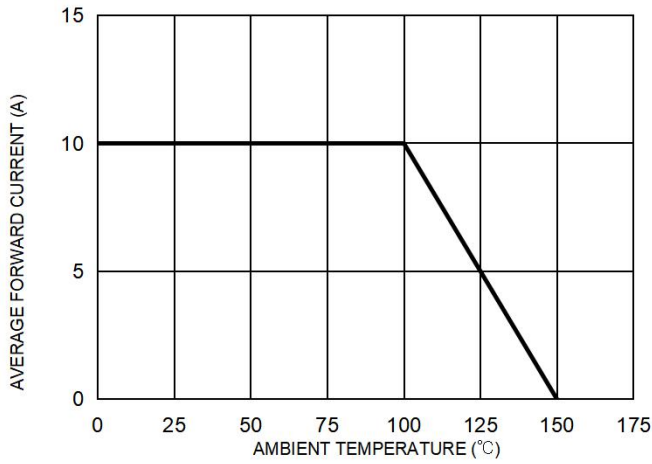


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

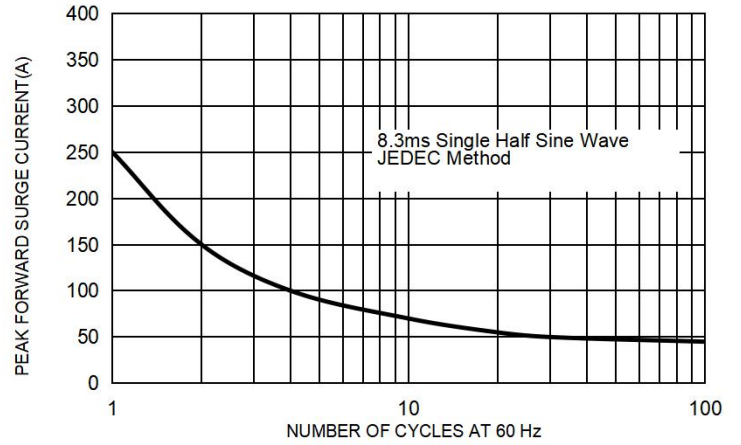


FIG. 3 TYPICAL FORWARD CHARACTERISTICS PER LEG

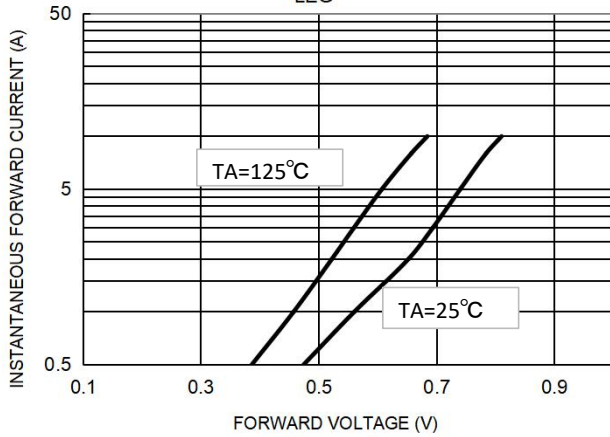
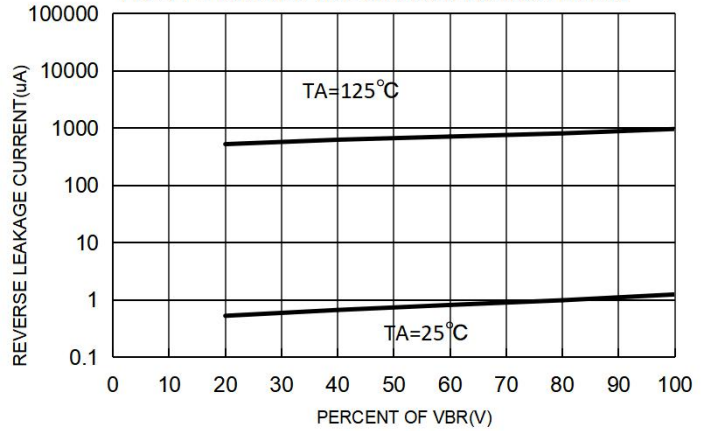
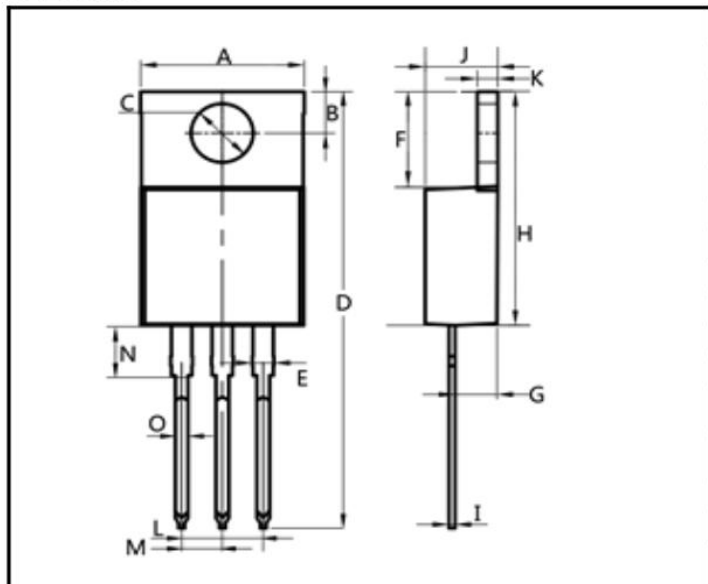


FIG. 4 TYPICAL REVERSE CHARACTERISTICS PER LEG

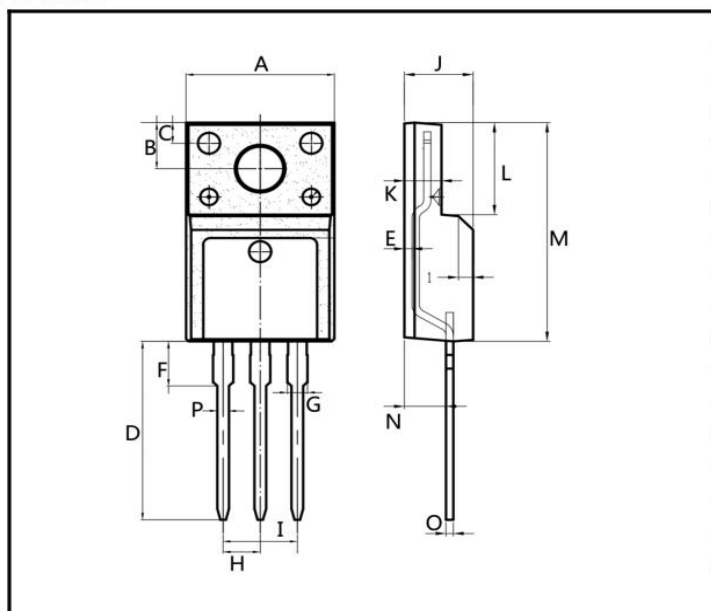


Package Outline Dimensions millimeters

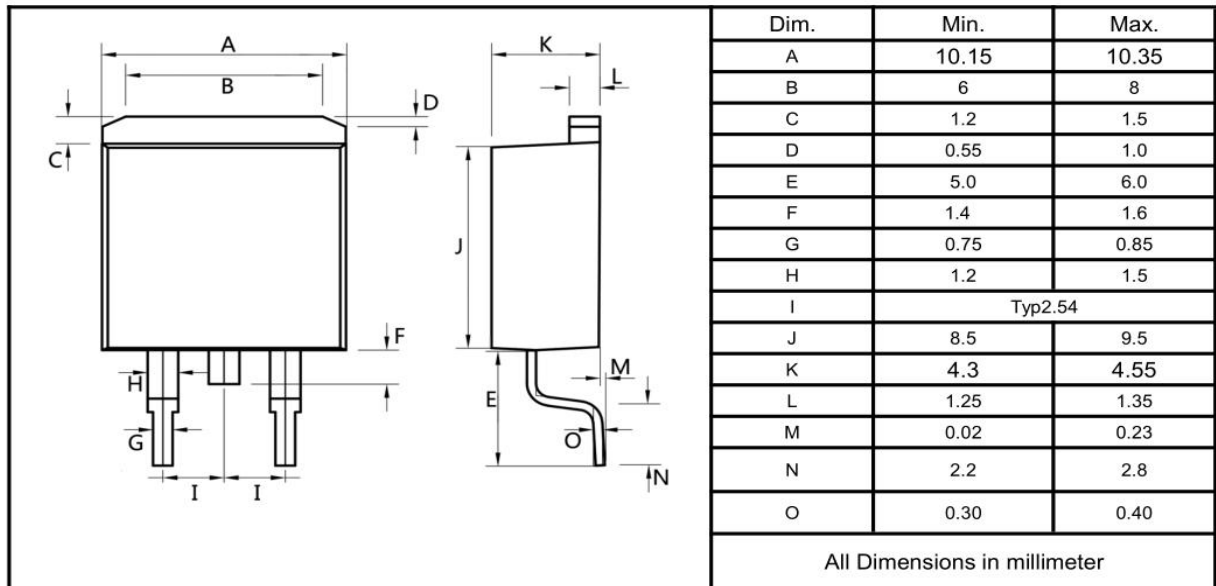
TO-220AB

	Dim.	Min.	Max.
	A	10.15	10.35
	B	2.50	2.95
	C	3.70	3.90
	D	28.5	29.5
	E	1.20	1.40
	F	6.20	6.55
	G	2.4	2.6
	H	15.0	16.0
	I	0.35	0.42
	J	4.3	4.55
	K	1.25	1.35
	L	Typ5.08	
	M	Typ2.54	
	N	2.8	3.5
	O	0.70	0.90
All Dimensions in millimeter			

TO-220F

	Dim.	Min.	Max.
	A	9.95	10.25
	B	2.95	3.25
	C	1.25	1.45
	D	12.80	13.20
	E	0.40	0.60
	F	2.8	3.5
	G	1.30	1.45
	H	Typ 2.54	
	I	Typ 5.08	
	J	4.60	4.75
	K	2.45	2.65
	L	6.5	6.8
	M	15.4	16.0
	N	2.75	3.05
	O	0.45	0.55
P	0.70	0.90	
All Dimensions in millimeter			

TO-263



TO-252

