# **MOSPEC**

## MBR20200CK/FCK/DC/CS

#### SCHOTTKY BARRIER RECTIFIER

## 123



TO-220AB/CK

TO-220F/FCK





TO-263/DC

3 TO-252/CS

#### 

#### Primary Characteristic

l <sub>o</sub>	2*10A		
V <sub>RRM</sub>	200V		
I <sub>FSM</sub>	250A		
V <sub>F</sub>	0.76V		
T <sub>J</sub> max	<b>150</b> ℃		
Assembly code	AH		

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 freqency, miniature switched mode power supplies such as adapters ,lighting and on-board DC/DC conerters

#### **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  $^\circ\!\!\mathbb C$  maximum,10s  $\,$  per JESD 22-B106  $\,$

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

Characteristics		Symbol	Value	Unit
aximum Repetitive Peak Reverse Voltage		V <sub>RRM</sub>	200	V
Norking Peak Reverse Voltage		V <sub>RWM</sub>	200	V
Maximum DC Blocking Voltage		V <sub>DC</sub>	200	V
Maximum Average Forward Rectified Current	Per Leg		10	^
	Total	I <sub>O</sub>	20	A
Peak Forward Surge Current,8.3 ms Single H	alf Sine-wave	I <sub>FSM</sub>	250	A
Operating Temperature Range		TJ	150	°C
Storage Temperature Range		T <sub>STG</sub>	-40 to +150	°C
Typical Thermal Resistance (Note1)				
TO-220AB,TO-263,TO-252		R <sub>0 JC</sub>	2	°C/W
TO-220F			4	

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

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

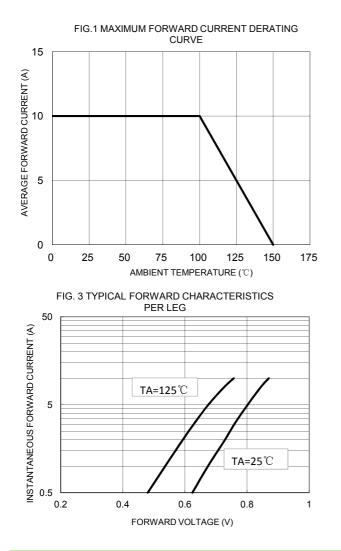
	er Leg) unles	S Otherwi	se specifieu		
Characteristics		Symbol	Value		Unit
Forward Voltage Drop(Note2)			Тур.	Max.	
at I <sub>F</sub> =3A	TA=25°C		0.76	-	
	TA=125°C		0.63	-	
at I <sub>F</sub> =5A	TA=25°C	V <sub>F</sub>	0.80	-	V
	TA=125°C		0.68	-	
at I <sub>F</sub> =10A	TA=25°C		0.87	0.95	
	TA=125°C		0.76	-	
Maximum Reverse Current at V <sub>R</sub> =200V	TA=25°C	1	1	10	μA
	TA=125°C	I <sub>R</sub>	1	-	mA

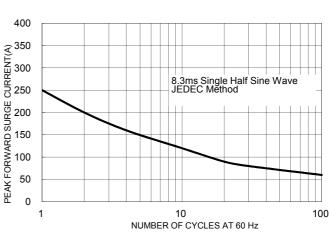
Note2:Pulse test: 300 µs pulse width, 1 % duty cycle

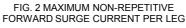
### MBR20200CK/FCK/DC/CS

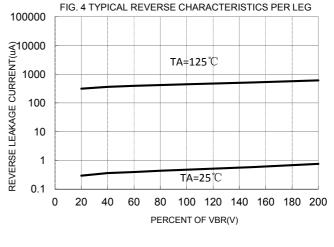
#### **RATINGS AND CHARACTERISTIC CURVES**

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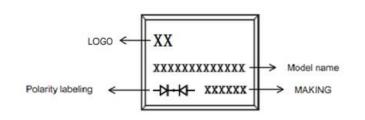




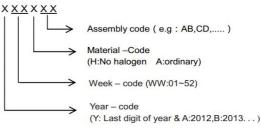




#### Marking on the body



#### MAKING:



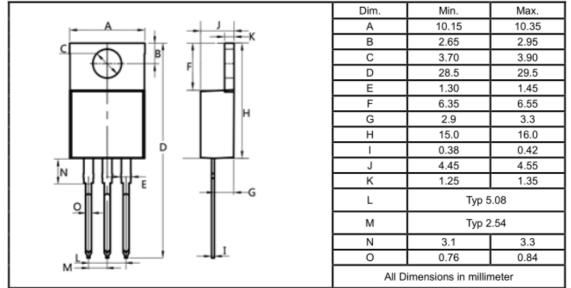
Ordering information					
Part Number	Package	Unit Weight	Base Quantity	Delivery mode	
MBR20200CK	TO-220AB	0.07oz(1.96g)	50 pcs / tube	1000pcs/box 5000pcs/carton	
MBR20200FCK	TO-220F	0.06oz(1.74g)	50 pcs / tube	1000pcs/box 5000pcs/carton	
MBR20200DC	TO-263	0.04oz(1.16g)	50 pcs / tube	1000pcs/box 5000pcs/carton	
MBR20200DC-R	TO-263	0.04oz(1.16g)	800 pcs / reel	800pcs/box 4000pcs/carton	
MBR20200CS	TO-252	0.011oz(0.32g)	2500 pcs / reel	2500pcs/box 12500pcs/carton	

Note: For Halogen Free molding compound, add "H" suffix to part number above.

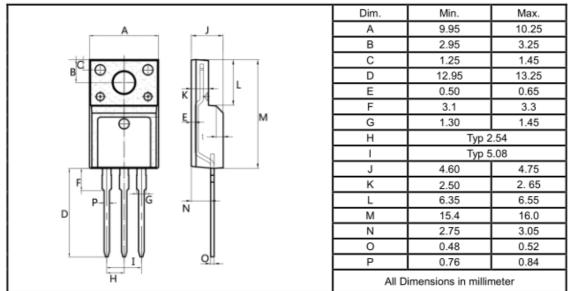


#### Package Outline Dimensions millimeters

#### TO-220AB

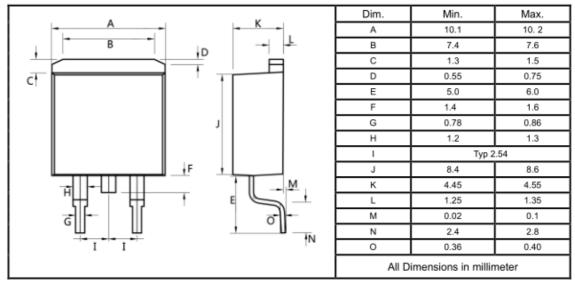


TO-220F

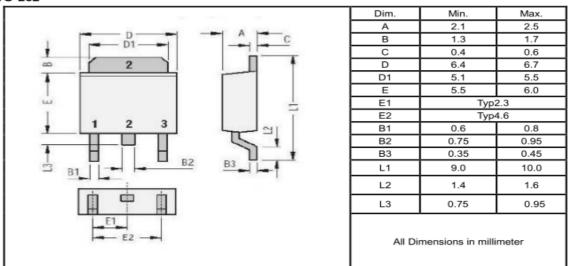




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