

MSKSEMI

SEMICONDUCTOR



ESD



TVS



TSS



MOV



GDT



PLED

Product data sheet

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_{Jmax}	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

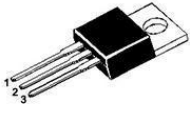
Maximum Ratings (Per Leg) at Ta=25°C unless otherwise specified			
Characteristics	Symbol	Value	Unit
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	100	V
Working Peak Reverse Voltage	V_{RWM}	100	V
Maximum DC Blocking Voltage	V_{DC}	100	V
Maximum Average Forward Rectified Current	I_O	Per Leg	10
		Total	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(Note 1)	$R_{\theta_{JC}}$		
TO-220AB, TO-263, TO-252		2	°C/W
TO-220F		4	

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

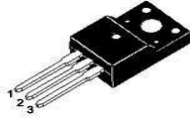
Electrical Characteristics (Per Leg) unless otherwise specified					
Characteristics		Symbol	Value		Unit
Forward Voltage Drop(Note2)		V_F	Typ.	Max.	V
at $I_F=3A$	TA=25°C		0.69	-	
	TA=125°C		0.60	-	
at $I_F=5A$	TA=25°C		0.74	-	
	TA=125°C		0.61	-	
at $I_F=10A$	TA=25°C		0.82	0.85	
	TA=125°C		0.68	-	
Maximum Reverse Current at $V_R=100V$	TA=25°C		I_R	1.5	
	TA=125°C		1	-	mA

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

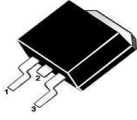
SCHOTTKY BARRIER RECTIFIER



TO-220AB/CT



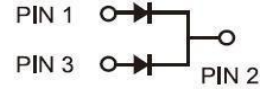
TO-220F/FCT



TO-263/DC

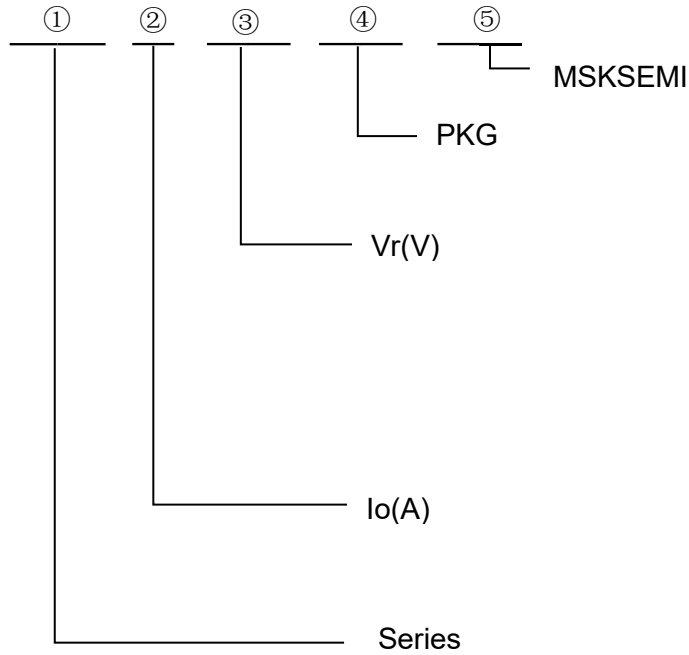


TO-252/CS



P/N Information

MBR 20 100 XXX -MS



①	②	③	④	⑤
系列	平均整流电流	直流反向耐压	封装	MSKSEMI

RATINGS AND CHARACTERISTIC CURVES

FIG.1 MAXIMUM FORWARD CURRENT DERATING CURVE

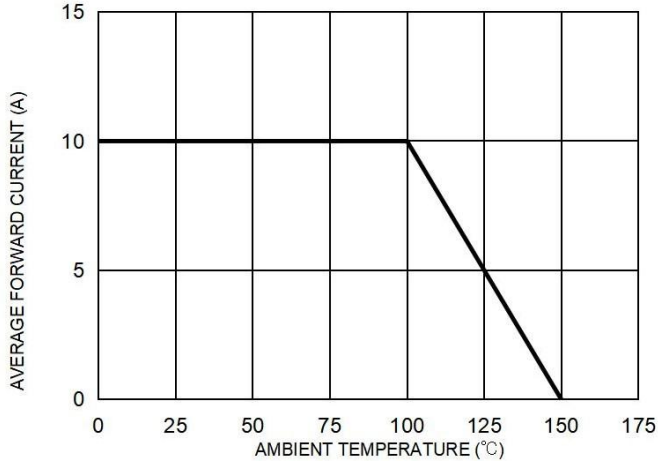


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

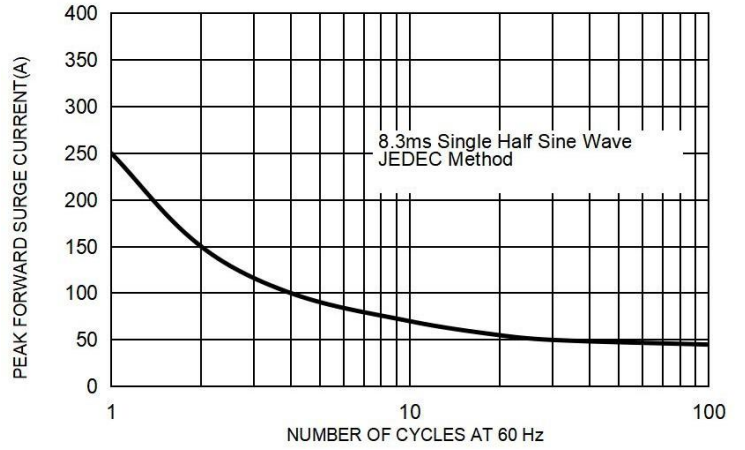


FIG. 3 TYPICAL FORWARD CHARACTERISTICS PER LEG

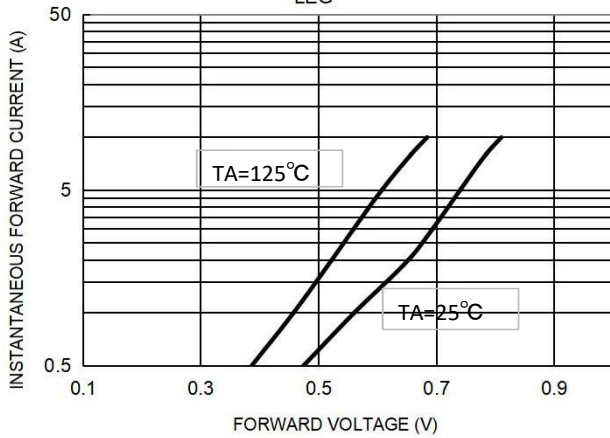
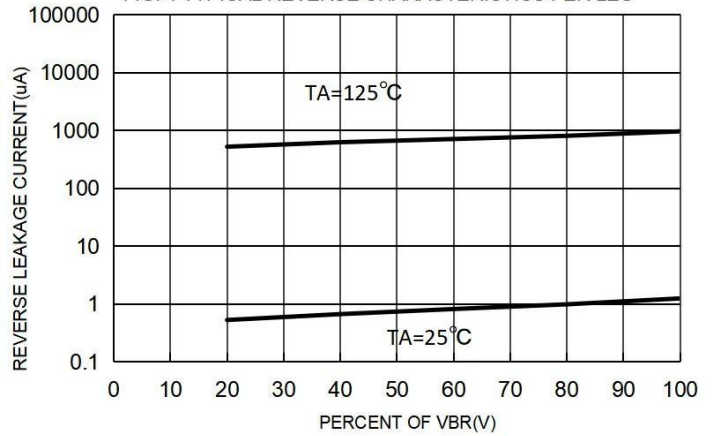
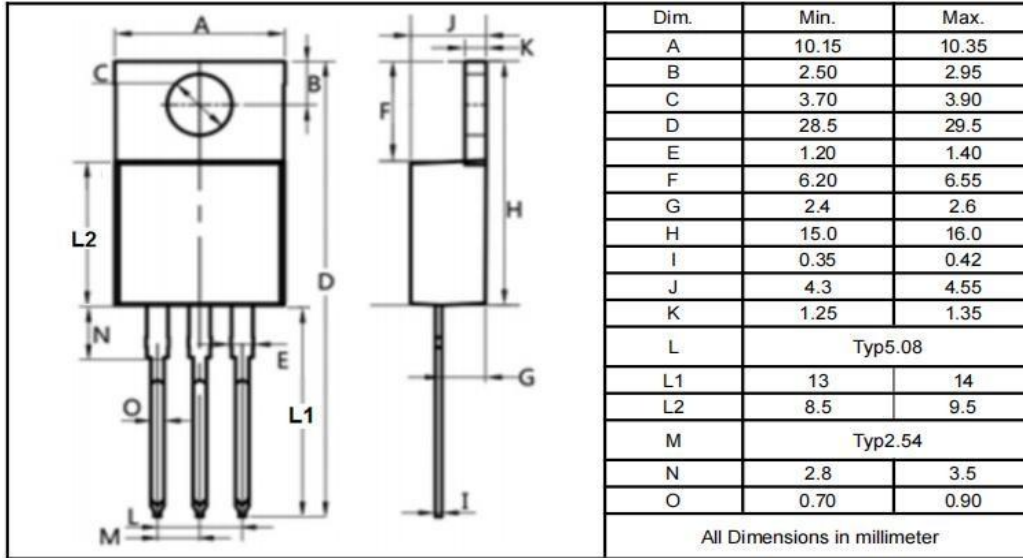


FIG. 4 TYPICAL REVERSE CHARACTERISTICS PER LEG



Package Outline Dimensions millimeters

TO-220AB

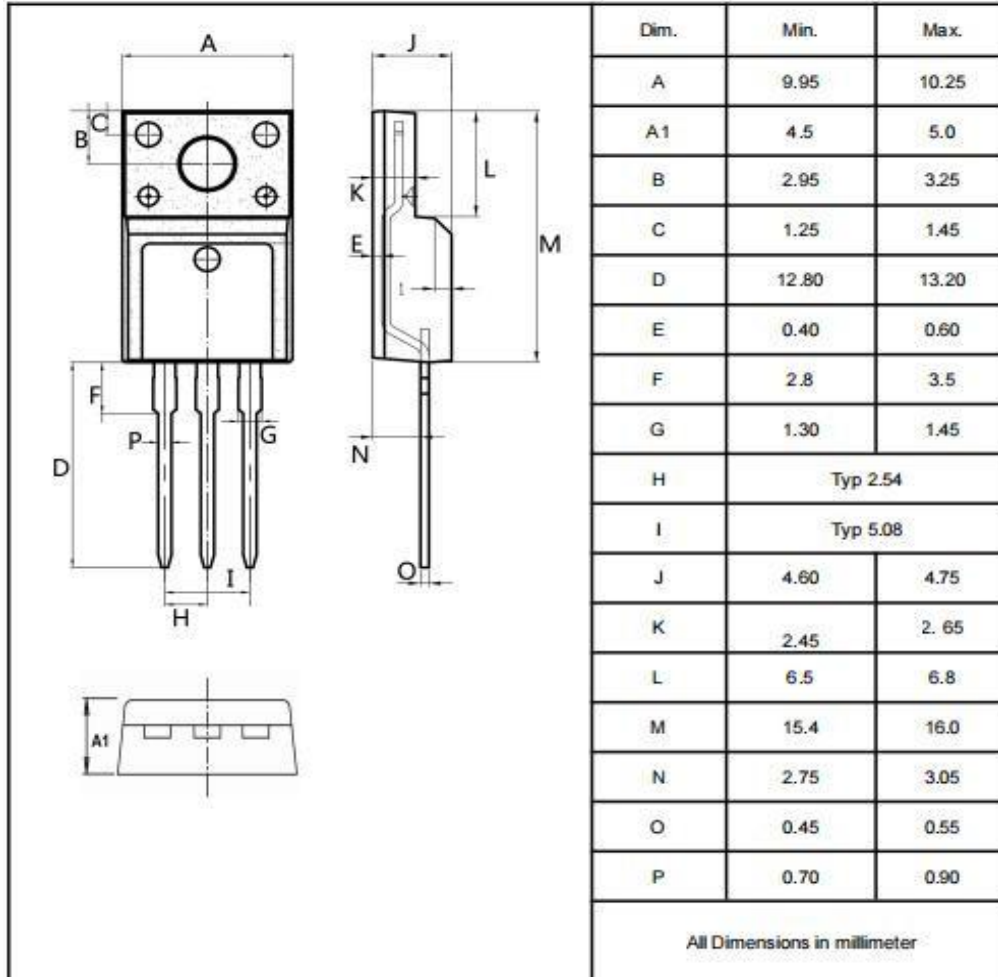


REEL SPECIFICATION

P/N	PKG	QTY
MBR20100CT-MS	TO-220AB	50pcs/tube 1000pcs/box

Package Outline Dimensions millimeters

TO-220F

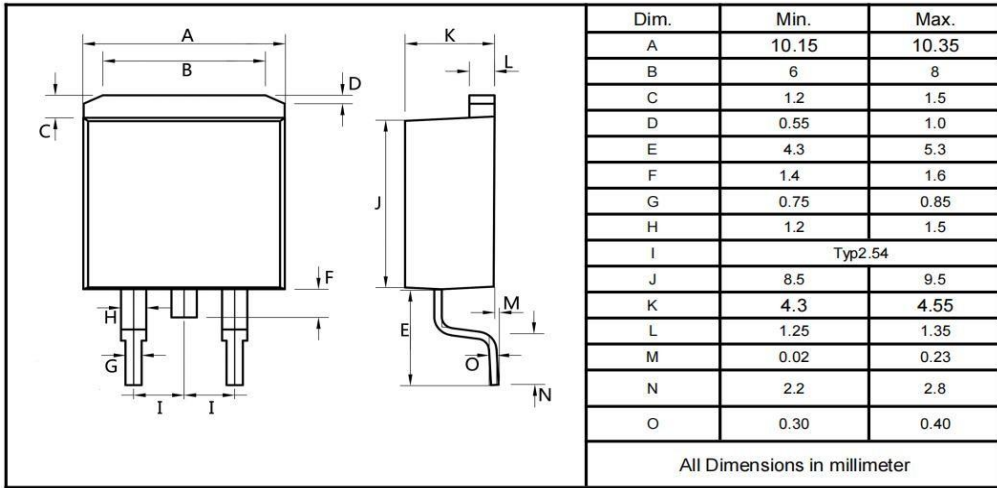


REEL SPECIFICATION

P/N	PKG	QTY
MBR20100FCT-MS	TO-220F	50pcs/tube 1000pcs/box

Package Outline Dimensions millimeters

TO-263



REEL SPECIFICATION

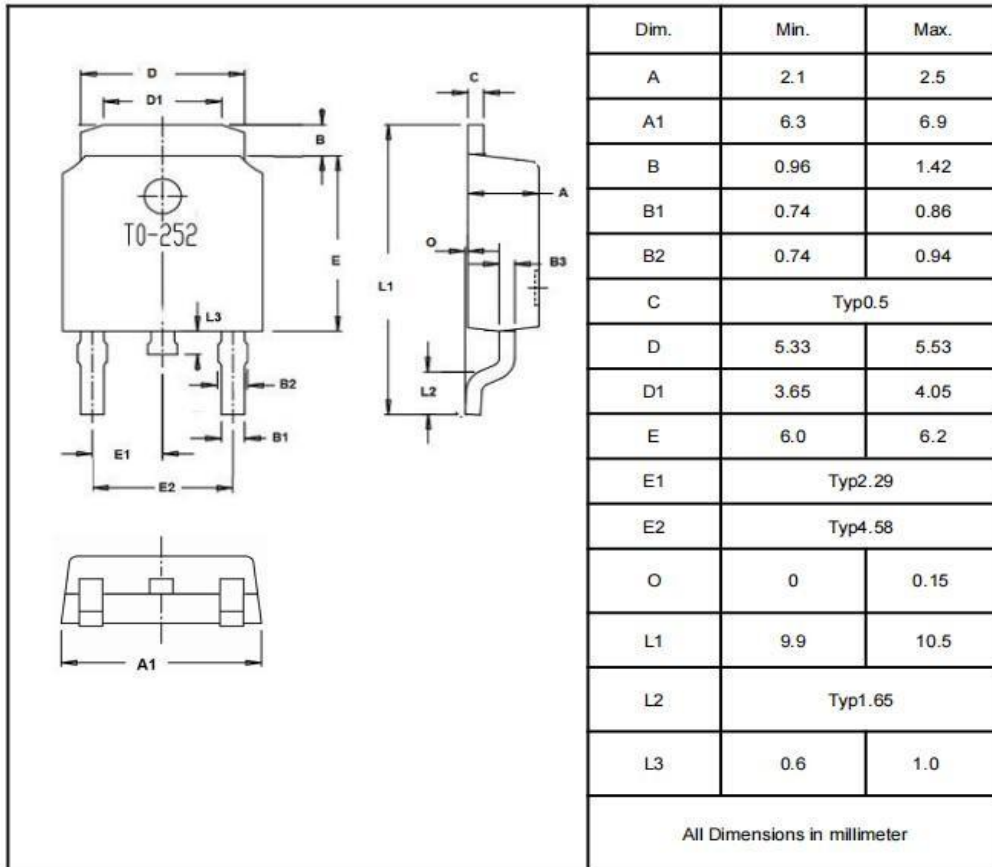
P/N	PKG	QTY
MBR20100DC-MS	TO-263	50pcs/tube 1000pcs/box

REEL SPECIFICATION

P/N	PKG	QTY
MBR20100DC-R-MS	TO-263	800pcs

Package Outline Dimensions millimeters

TO-252



REEL SPECIFICATION

P/N	PKG	QTY
MBR20100CS-MS	TO-252	2500

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