

# 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*5A
$V_{RRM}$	100V
$I_{FSM}$	120A
$V_F$	0.65V
$T_{jmax}$	150°C
Assembly code	AI

**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 JESD22-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	5	A
	Total	10	
Peak Forward Surge Current,8.3 ms Single Half Sine-wave	$I_{FSM}$	120	A
Operating Temperature Range	$T_J$	150	°C
Storage Temperature Range	$T_{STG}$	-40 to +150	°C
Typical Thermal Resistance (Note1) TO-220AB,TO-263,TO-252 TO-220F	$R_{\theta JC}$	2	°C/W
		4	

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

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

Characteristics	Symbol	Value		Unit	
		Typ.	Max.		
Forward Voltage Drop(Note2) at $I_F=2A$	$V_F$	Typ.	Max.	V	
		TA=25°C	-		
TA=125°C		-			
at $I_F=3A$		TA=25°C	0.72		-
		TA=125°C	0.60		-
at $I_F=5A$		TA=25°C	0.76		0.85
	TA=125°C	0.65	-		
Maximum Reverse Current at $V_R=100V$	$I_R$	TA=25°C	0.001	mA	
		TA=125°C	0.6	mA	

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

RATINGS AND CHARACTERISTIC CURVES

FIG.1 MAXIMUM FORWARD CURRENT DERATING CURVE

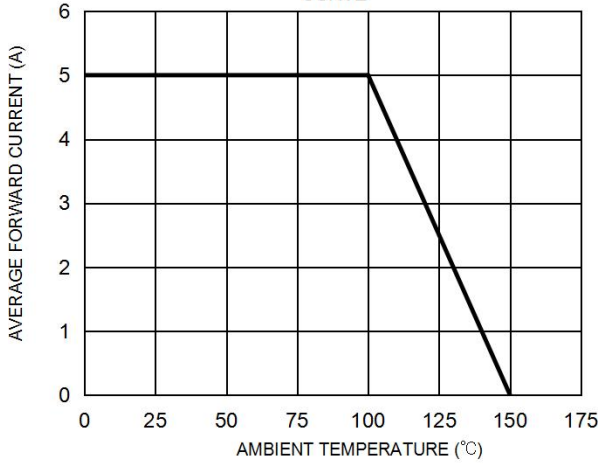


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

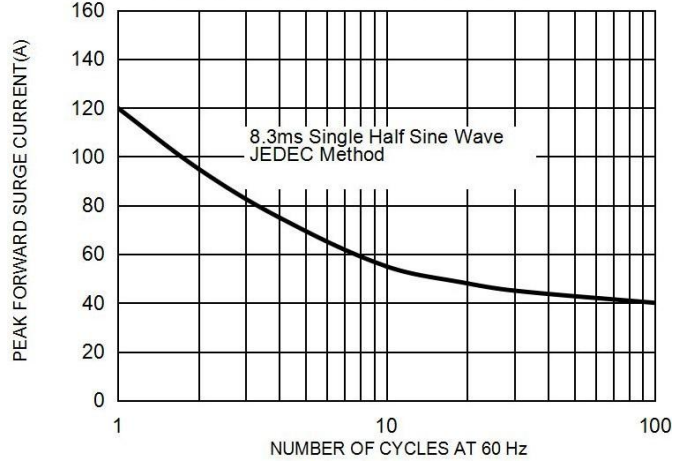


FIG. 3 TYPICAL FORWARD CHARACTERISTICS PER LEG

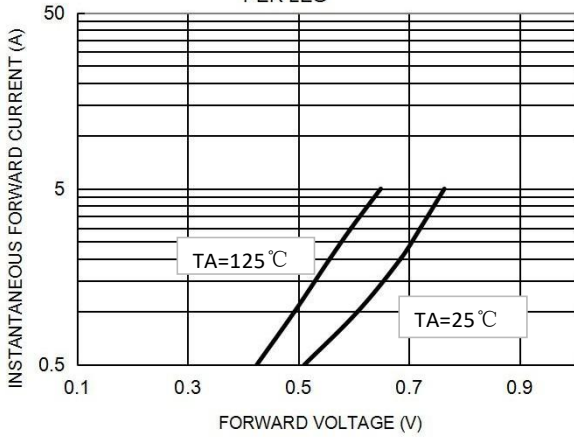
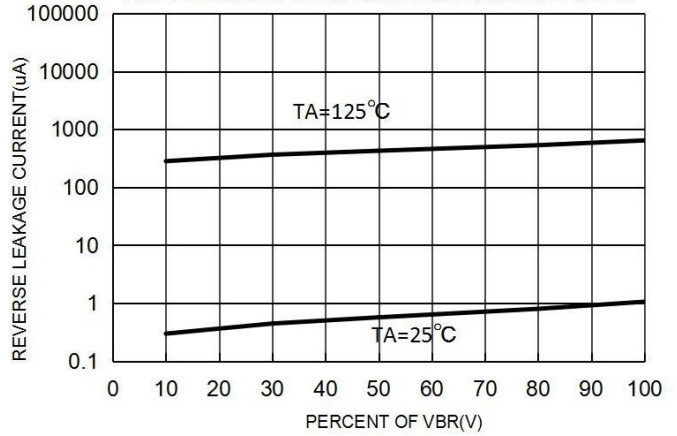
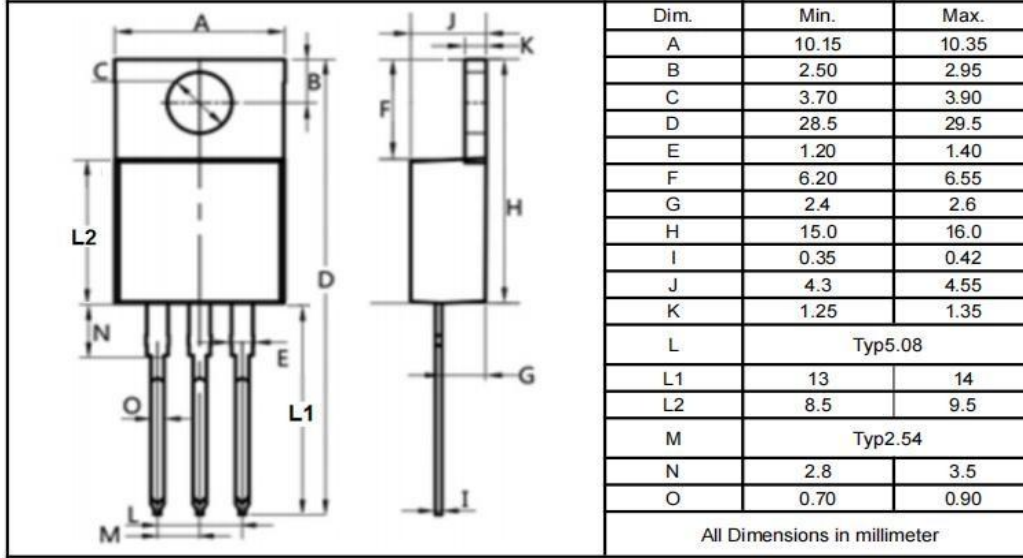


FIG. 4 TYPICAL REVERSE CHARACTERISTICS PER LEG



Package Outline Dimensions millimeters

TO-220AB

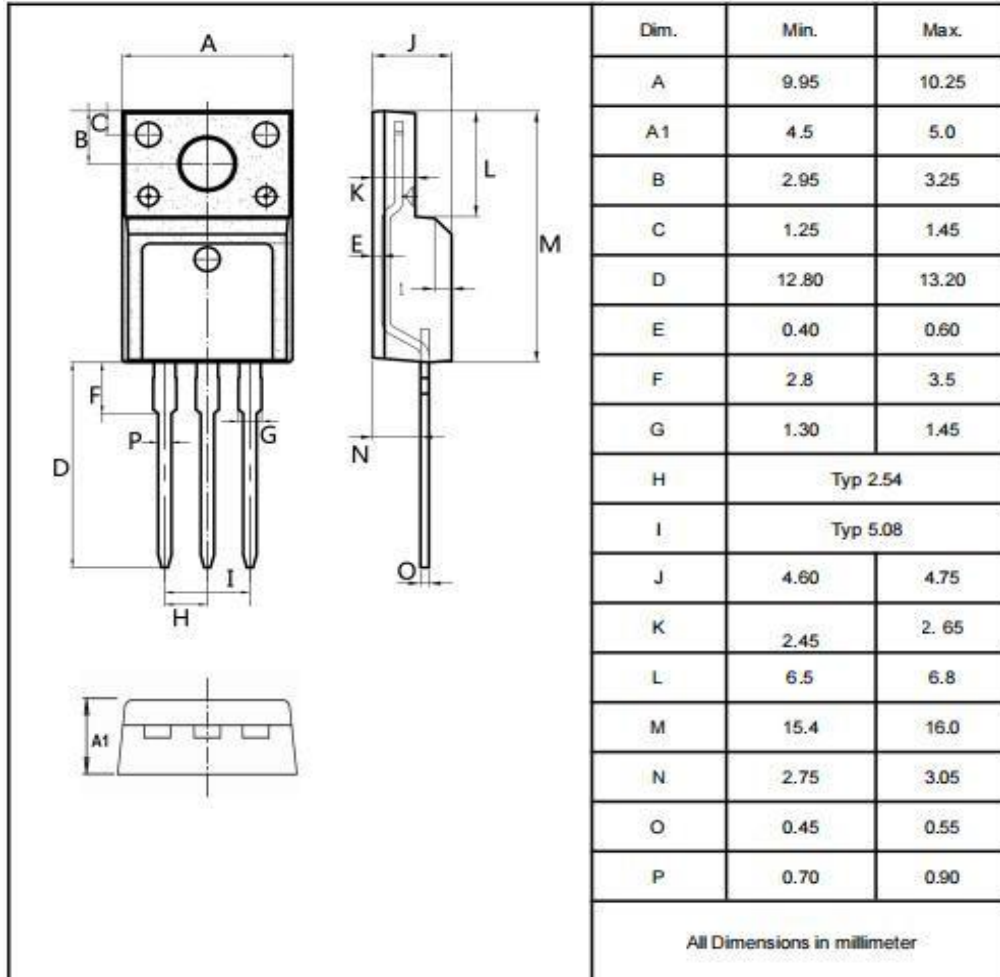


**REEL SPECIFICATION**

P/N	PKG	QTY
MBR10100CT-MS	TO-220AB	50pcs/tube 1000pcs/box

Package Outline Dimensions millimeters

TO-220F

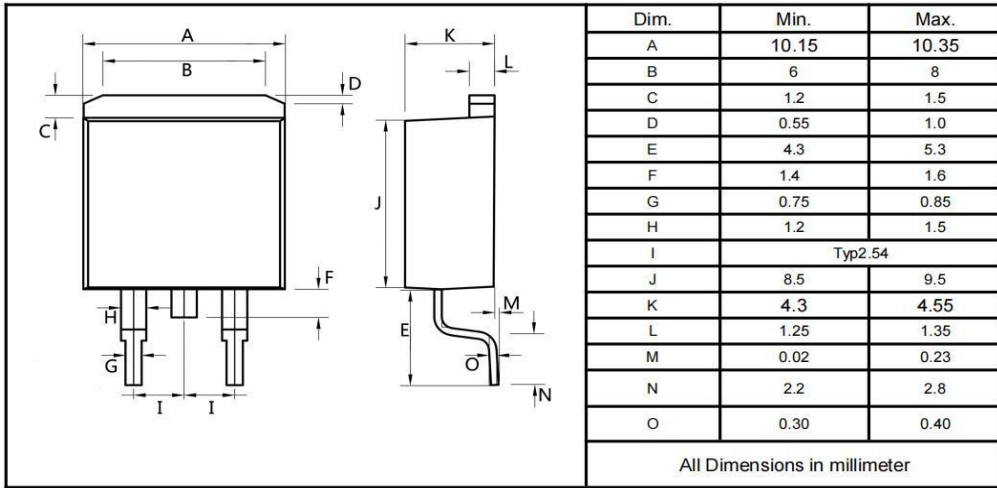


**REEL SPECIFICATION**

P/N	PKG	QTY
MBR10100FCT-MS	TO-220F	50pcs/tube 1000pcs/box

Package Outline Dimensions millimeters

TO-263



**REEL SPECIFICATION**

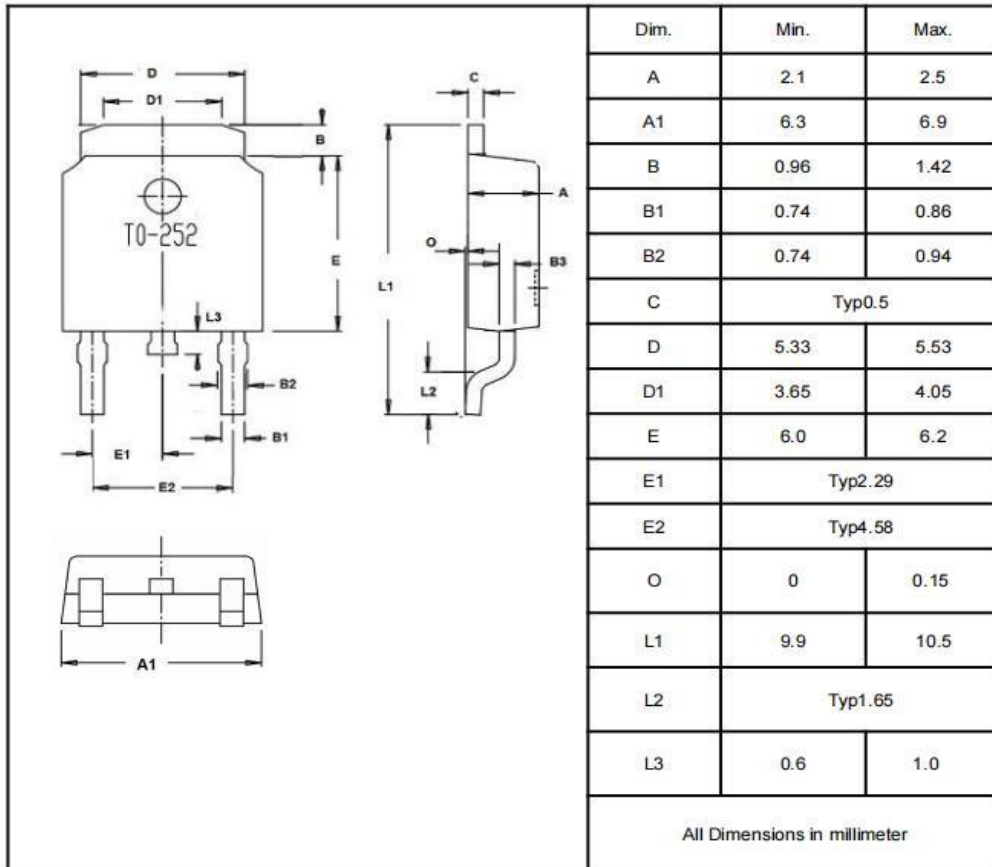
P/N	PKG	QTY
MBR10100DC-MS	TO-263	50pcs/tube 1000pcs/box

**REEL SPECIFICATION**

P/N	PKG	QTY
MBR10100DC-R-MS	TO-263	800pcs

Package Outline Dimensions millimeters

TO-252



**REEL SPECIFICATION**

P/N	PKG	QTY
MBR10100CS-MS	TO-252	2500

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