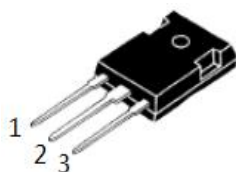


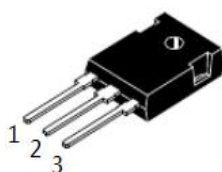


# MBR3045PT/PTS

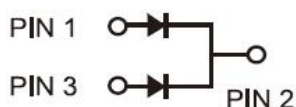
## SCHOTTKY BARRIER RECTIFIER



TO-247/PT



TO-247S/PTS



### 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*15A
$V_{RRM}$	45V
$I_{FSM}$	300A
$V_F$	0.58V
$T_{jmax}$	150°C
Assembly code	AK

### 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	$V_{RRM}$	45	V
Working Peak Reverse Voltage	$V_{RWM}$	45	V
Maximum DC Blocking Voltage	$V_{DC}$	45	V
Maximum Average Forward Rectified Current	Per Leg Total	15	A
		30	
Peak Forward Surge Current,8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	$I_{FSM}$	300	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

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 $I_F=5A$	TA=25°C		0.48	-	
	TA=125°C		0.41	-	
at $I_F=10A$	TA=25°C		0.56	0.60	
	TA=125°C		0.51	-	
at $I_F=15A$	TA=25°C		0.63	0.66	
	TA=125°C		0.58	-	
Maximum Reverse Current at $V_R=45V$	TA=25°C	$I_R$	8	50	μA
	TA=125°C		5	-	mA

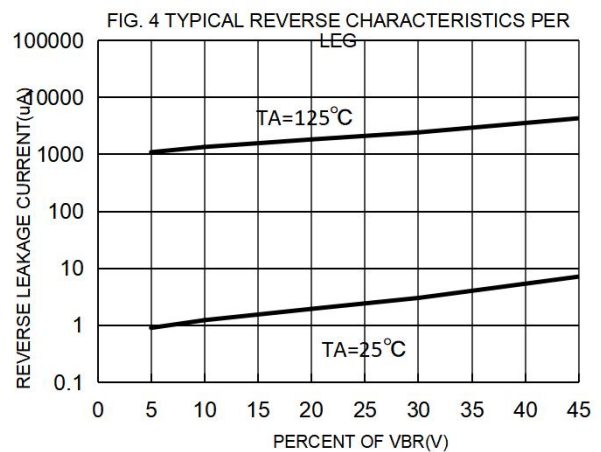
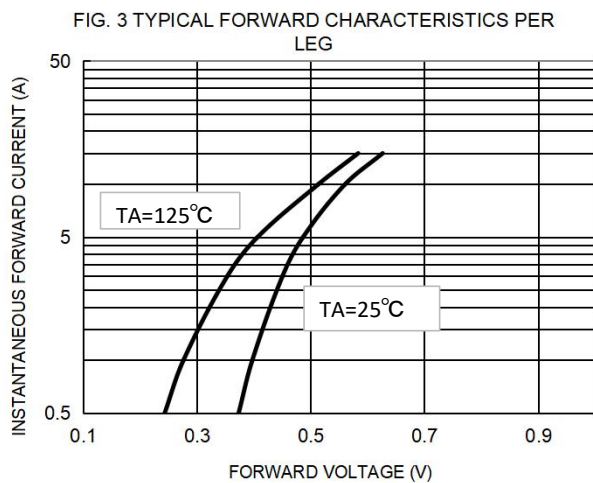
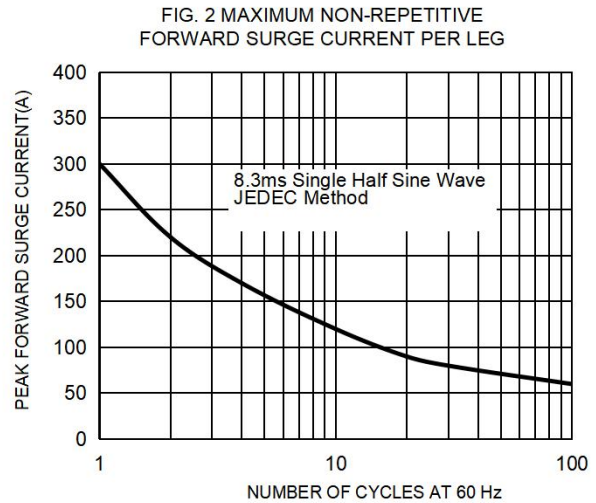
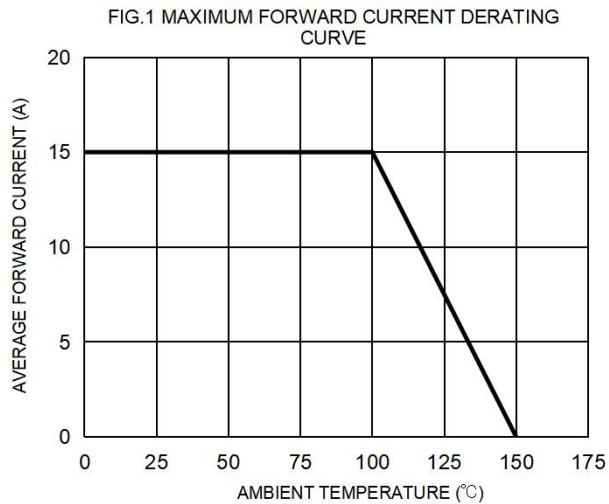
Note2:Pulse test: 300 μs pulse width, 1 % duty cycle



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## SCHOTTKY BARRIER RECTIFIER

### RATINGS AND CHARACTERISTIC CURVES



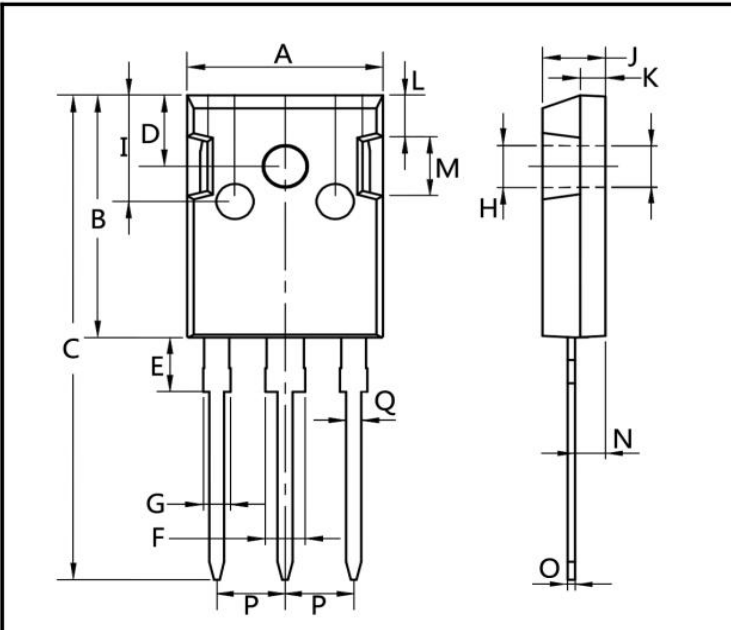


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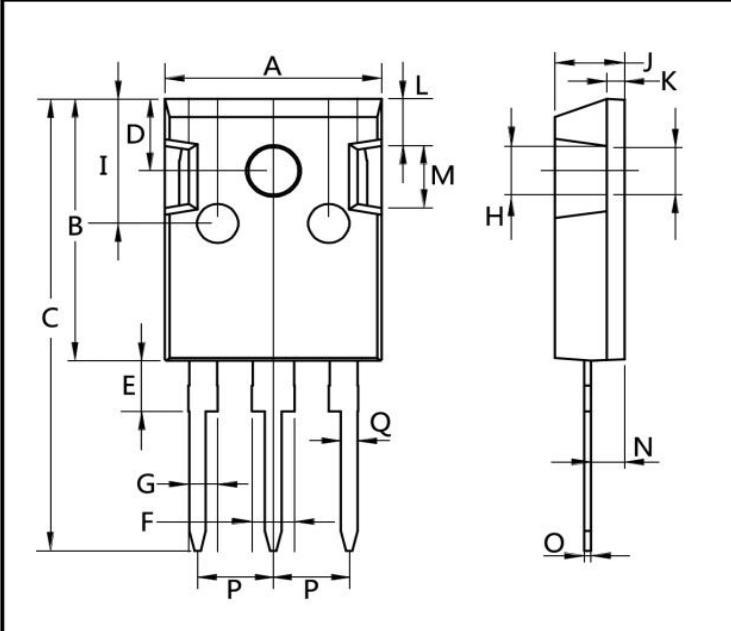
## SCHOTTKY BARRIER RECTIFIER

Package Outline Dimensions millimeters

### TO-247

	Dim.	Min.	Max.
	A	15.0	16.0
	B	20.0	21.0
	C	40.0	42.0
	D	5.5	6.5
	E	4.0	5.5
	F	2.5	3.5
	G	1.75	2.5
	H	3.0	4.0
	I	8.0	10.0
	J	4.9	5.1
	K	1.9	2.1
	L	3.0	4.0
	M	4.75	5.25
	N	2.0	3.0
	O	0.55	0.65
	P	Typ 5.4	
	Q	1.17	1.3
	All Dimensions in millimeter		

### TO-247S

	Dim.	Min.	Max.
	A	15.0	16.0
	B	19.5	20.5
	C	33.5	35.5
	D	5.0	6.0
	E	3.5	4.5
	F	2.5	3.5
	G	1.75	2.5
	H	3.0	4.0
	I	9.0	11.0
	J	4.9	5.1
	K	1.15	1.35
	L	3.0	4.0
	M	4.75	5.25
	N	2.0	2.5
	O	0.45	0.55
	P	Typ 5.4	
	Q	1.17	1.3
	All Dimensions in millimeter		