

30A SCHOTTKY BARRIER RECTIFIER



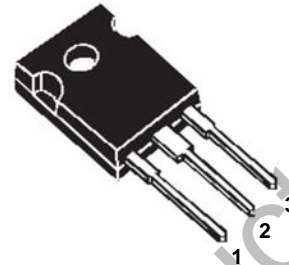
MBR3040PT-MBR30200PT

Features:

- Low power loss, high efficiency.
High surge capacity
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications.
- Metal silicon junction, majority carrier conduction.
- High current Capability, low forward voltage drop.
- Guard ring for over voltage protection.



TO-247S



1. Anode 2. Cathode 3. Anode

Absolute Maximum Ratings (Ta=25°C unless otherwise noted)

Parameter	Symbol	MBR 3040 PT	MBR 3045 PT	MBR 3050 PT	MBR 3060 PT	MBR 3080 PT	MBR 3090 PT	MBR 30100 PT	MBR 30150 PT	MBR 30200 PT	Unit
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	40	45	50	60	80	90	100	150	200	V
Maximum RMS Voltage	V_{RMS}	28	31.5	35	42	56	63	70	105	140	
Maximum DC Blocking Voltage	$V_{R(DC)}$	40	45	50	60	80	90	100	150	200	
Maximum Average Forward Current	$I_{F(AV)}$	30									A
Peak Forward Surge Current: 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	275									
Maximum Forward Voltage at 15A per leg	V_F	0.68	0.72		0.85			0.95		V	
Maximum DC Reverse Current at Rated DC Blocking Voltage	I_R	0.1									mA
		20									
Maximum Operating Junction Temperature	T_j	150				175					°C
Storage Temperature	T_{stg}	-55~+150				-65~+175					
Typical Thermal Resistance	$R_{\theta JC}$	1.4									°C/W

Typical Characteristics

RATING AND CHARACTERISTIC CURVES

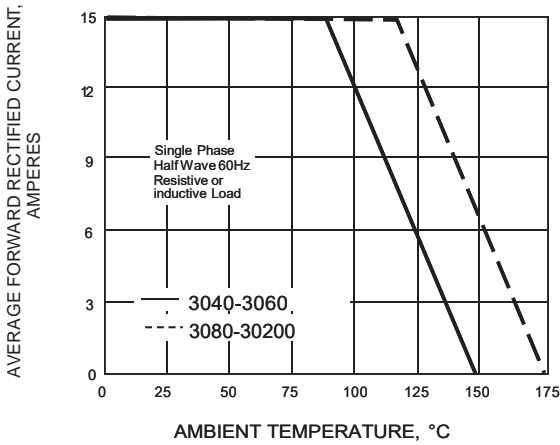


Fig.1 FORWARD CURRENT ERATING CURVE

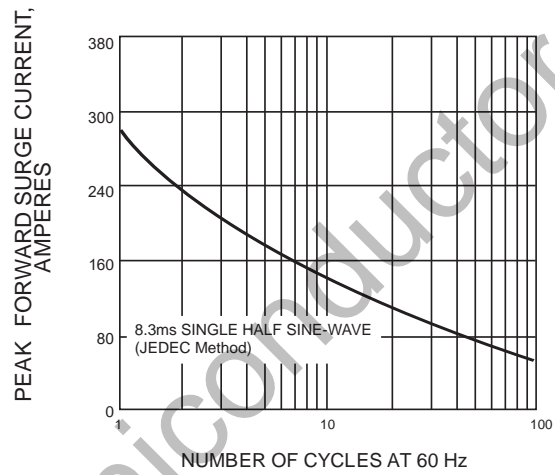


Fig.2 MAXIMUM NON-REPETITIVE SURGE CURRENT

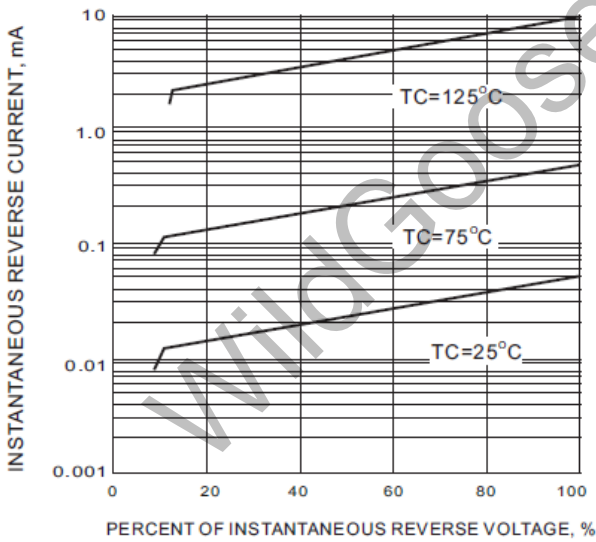


Fig.3 TYPICAL REVERSE CHARACTERISTIC

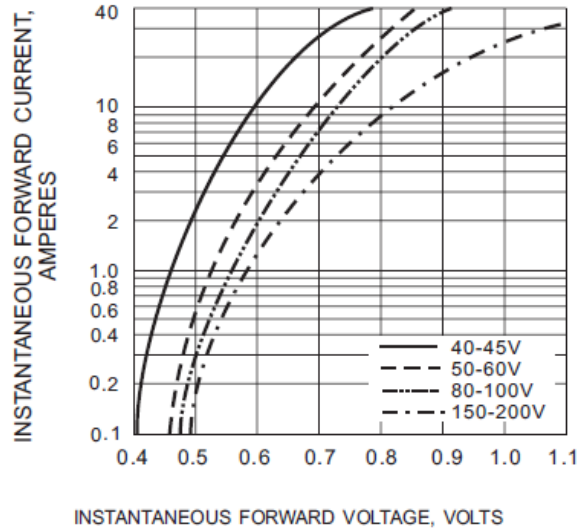
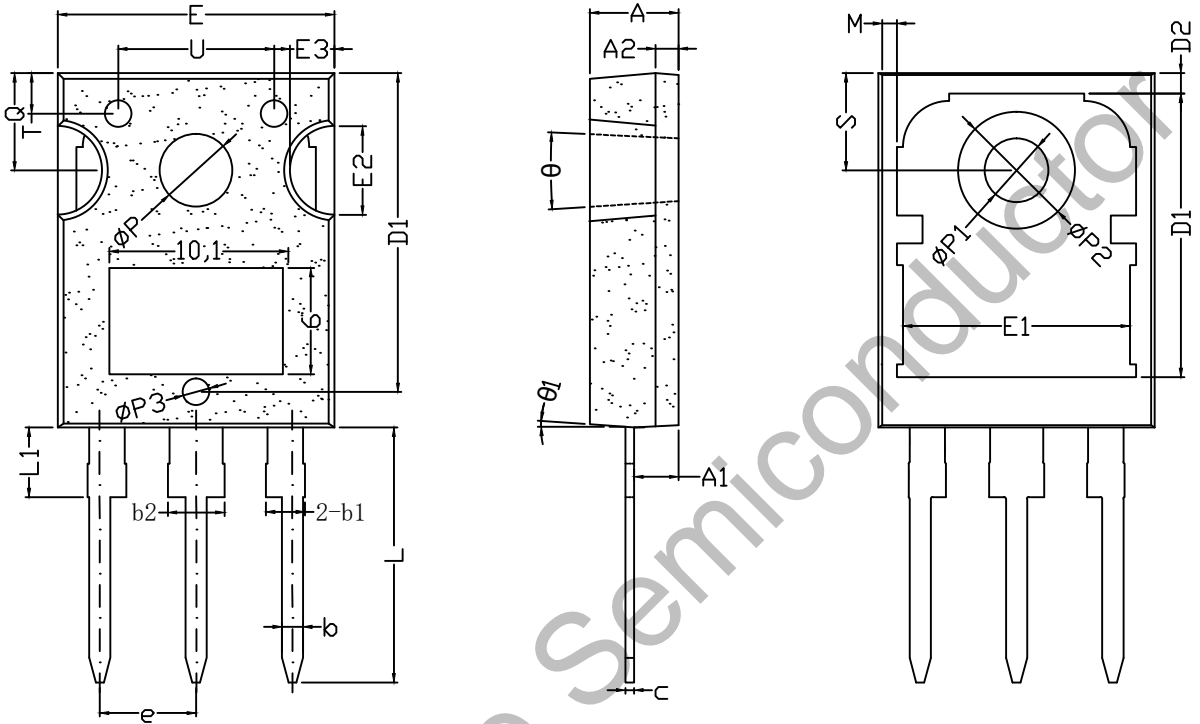


Fig.4 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC

Package Dimension

TO-247S



SYMBOL	mm		
	MIN	NOM	MAX
* A	4.90	5.00	5.10
* A1	2.35	2.50	2.65
A2	1.20	1.30	1.40
* b	1.25	1.20	1.30
* b1	1.95	2.10	2.25
* b2	2.95	3.10	3.25
* c	0.45	0.50	0.55
* D	19.90	20.00	21.10
D1	15.80	16.00	16.20
D2	1.00	1.15	1.30
* E	15.50	15.60	15.70
E1	13.10	13.30	13.50
E2	4.90	5.00	5.10
E3	2.40	2.50	2.60
* e	5.40	5.44	5.48
* L	14.20	14.40	14.60
* L1	-	-	4.20
* P	4.00	4.10	4.20
* P1	3.50	3.60	3.70
P2	6.40	6.60	6.80
P3	1.45	1.50	1.65
Q	5.30	5.50	5.70
* S	5.40	5.50	5.60
T	2.10	2.30	2.20
U	8.60	8.80	9.00
θ	3°	6°	9°
θ1	3°	6°	9°