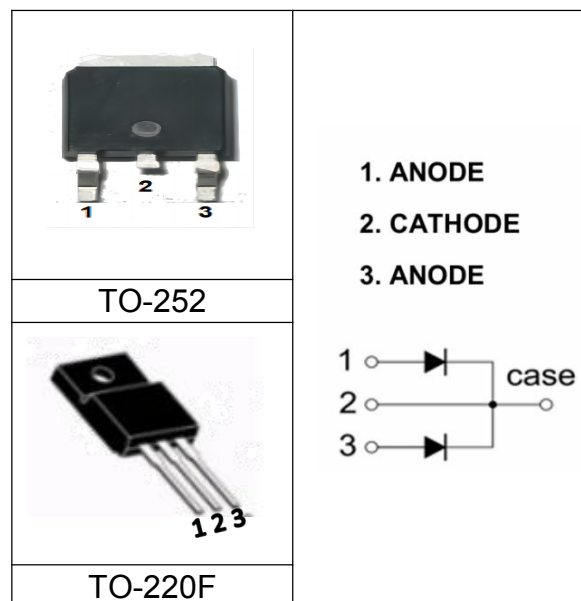


DESCRIPTION

The MBR1045DS meet the ROHS and Green Product requirement with full function reliability approved.

FEATURE

- *Schottky Barrier Chip
- *Guard Ring Die Construction for Transient Protection
- *Low Power Loss,High Efficiency
- *High Surge Capability
- *High Current Capability and Low Forward Voltage Drop
- *For Use in Low Voltage, High Frequency Inverters,Free Wheeling, and Polarity Protection Applications



ABSOLUTE MAXIMUM RATINGS(TA=25°C, unless otherwise specified.)

SYMBOL	PARAMETER	VALUE	UNIT
VRRM	Peak repetitive reverse voltage	45	V
VRWM	Working peak reverse voltage	45	V
VR	DC blocking voltage	45	V
VR(RMS)	RMS reverse voltage	31.5	V
IO	Average rectified output current	10	A
IFSM	Non-Repetitive peak forward surge current(8.3ms half sine wave)	150	A
PD	Power dissipation	2	W
Tj	Junction temperature	150	°C
Tstg	Storage temperature	-55~+150	°C
RθJA	Thermal Resistance from Junction to Ambient	100	°C/W
RθJC	Thermal Resistance From Junction To Case	5	°C/W

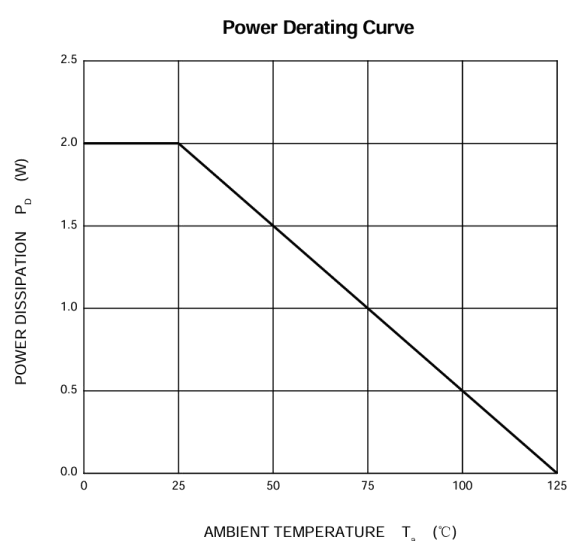
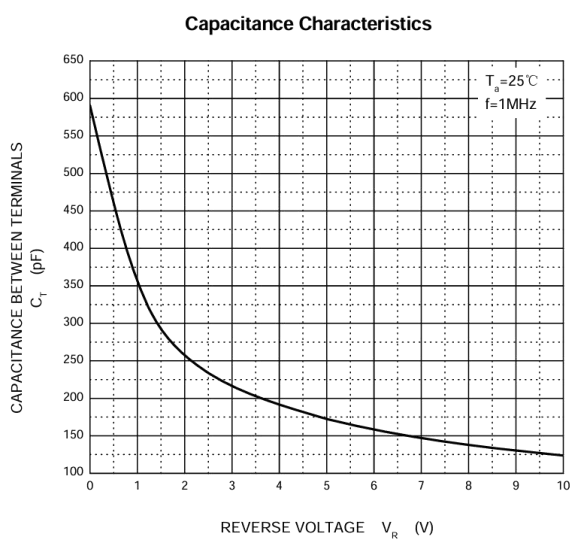
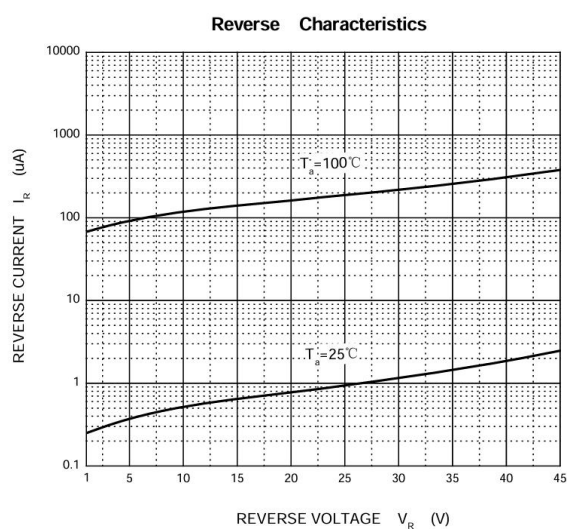
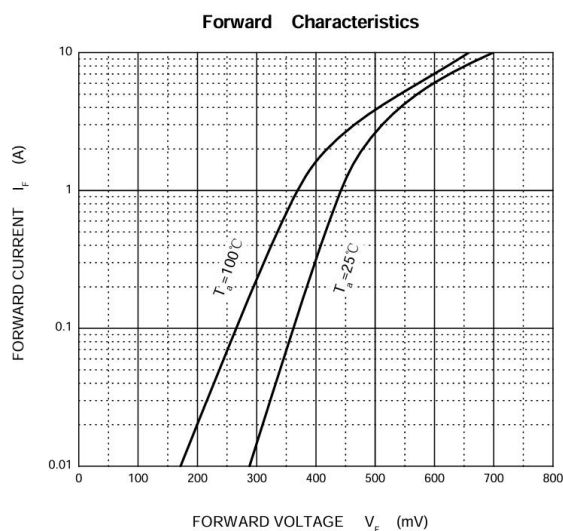
Notes: Absolute maximum ratings are those values beyond which the device could be permanently damaged. Absolute maximum ratings are stress ratings only and functional device operation is not implied.

■ ELECTRICAL CHARACTERISTICS (TA=25°C, unless otherwise specified)

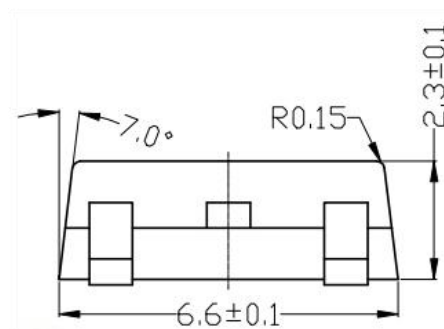
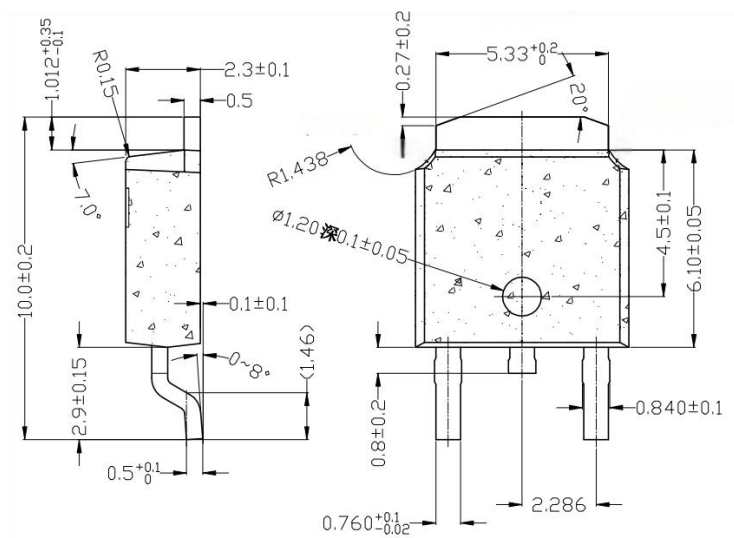
PARAMETER	SYMBOL	TEST CONDITIONS		MIN	TYP	MAX	UNIT
Reverse voltage	$V_{(BR)}$	$I_R=0.1mA$		45			V
Reverse current	I_R	$V_R=45V$				0.1	mA
Forward voltage	V_{F1}	$I_F=3A$	$T_j=25^\circ C$		0.47		V
	V_{F2}	$I_F=5A$	$T_j=25^\circ C$		0.60	0.7	V
	V_{F3}	$I_F=10A$	$T_j=25^\circ C$			0.84	V

*Pulse test

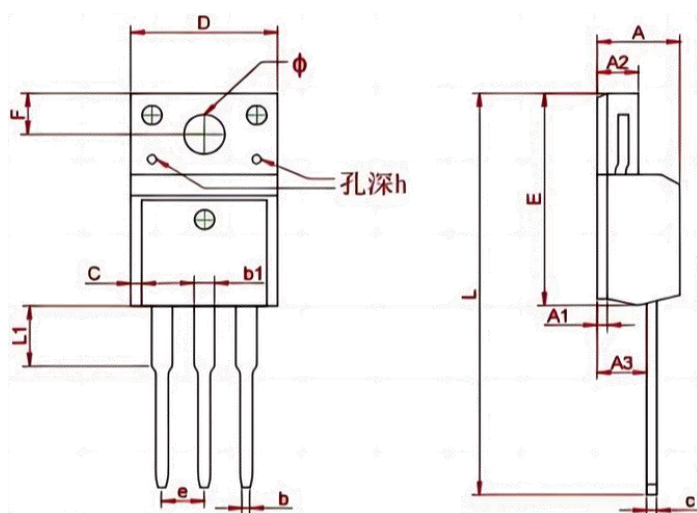
■ TYPICAL CHARACTERISTICS



■ TO - 252 Package Outline Dimensions



■ TO - 220F Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max	Min	Max
A	4.300	4.750	0.169	0.185
A1	1.830 REF		0.072 REF	
A2	2.300	2.850	0.090	0.112
A3	2.500	2.900	0.098	0.114
b	0.400	0.420	0.016	0.016
b1	1.220	1.280	0.048	0.050
C	0.690	0.720	0.027	0.028
c	0.490	0.510	0.019	0.020
D	9.960	10.200	0.392	0.400
E	15.000	15.950	0.588	0.625
e	2.574 TYP		0.101TYP	
F	3.470 REF		0.136 REF	
y	3.200 REF		0.125 REF	
h	0.000	0.300	0.000	0.012
L	28.780	28.900	1.128	1.133
L1	2.990	3.100	0.117	0.122