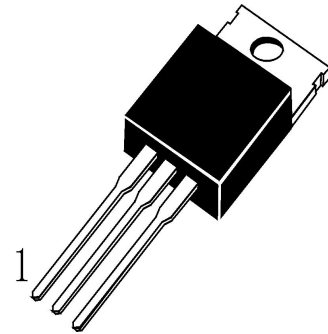


◆ Features:

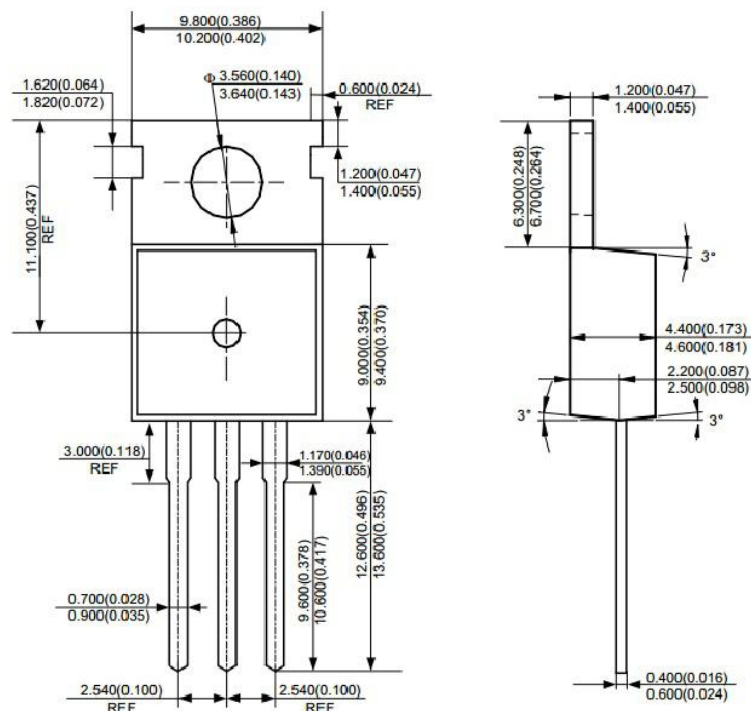
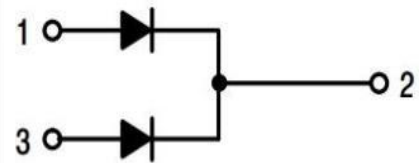
- ✧ High switching frequency
开关频率高
- ✧ Low forward voltage drop
正向压降低
- ✧ High efficiency and low power loss
高效低功耗
- ✧ High volume of current and good capability of surge current
大电流浪涌能力强

◆ Applications

- ✧ High frequency rectifier of switching mode power supplies
高频整流器开关电源
- ✧ Freewheeling diodes
续流二极管
- ✧ Polarity protection application
极性保护应用
- ✧ DC-DC converters
直流-直流变换器


TO-220


PIN CONNECTIONS



◆ Absolute Maximum Ratings (Tc=25°C)

Symbol	Parameters	Ratings	Unit
V_{RRM}	Repetitive Peak Reverse Voltage 最大反向重复峰值电压	100	V
V_{RWM}	Working peak reverse voltage 反向峰值工作电压	100	V
V_R	Maximum DC blocking voltage 最大直流反向电压	100	V
$I_F (AV)$	Maximum average forward rectified current Total device 最大正向平均电流	30	A
I_{FSM}	Peak Forward Surge Current 正向峰值浪涌电流	275	A
T_j	Operating junction temperature range 结温	-65~150	°C
T_{stg}	Storage temperature range 贮存温度	-65~175	°C

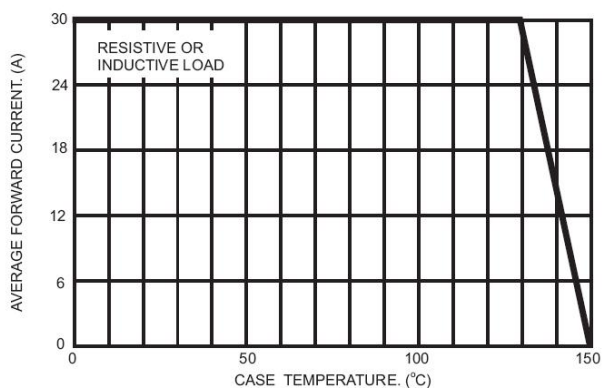
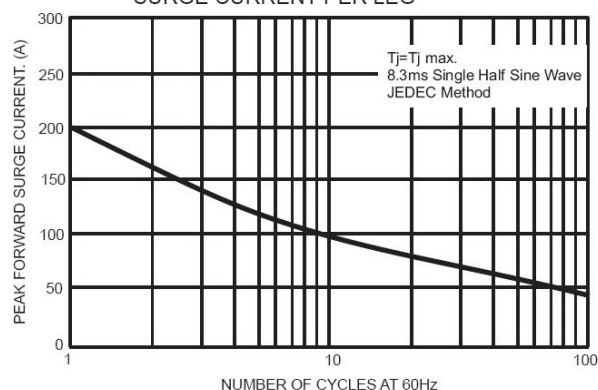
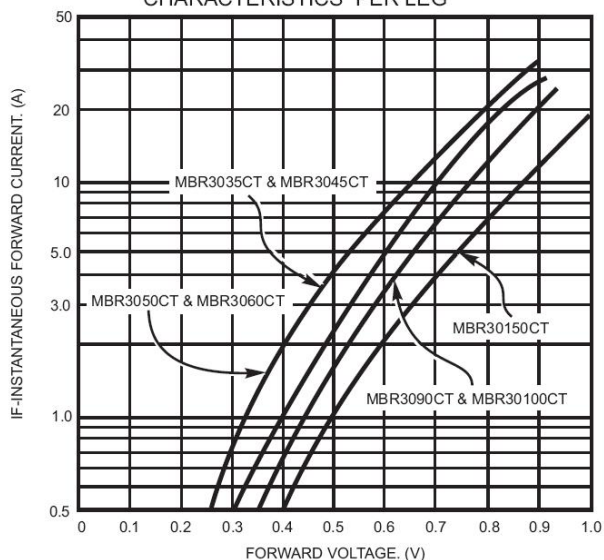
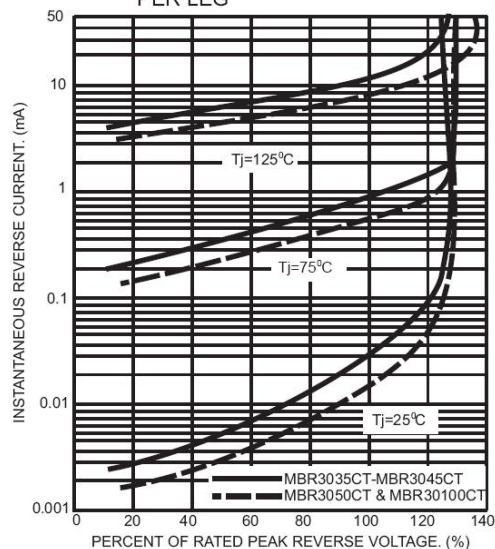
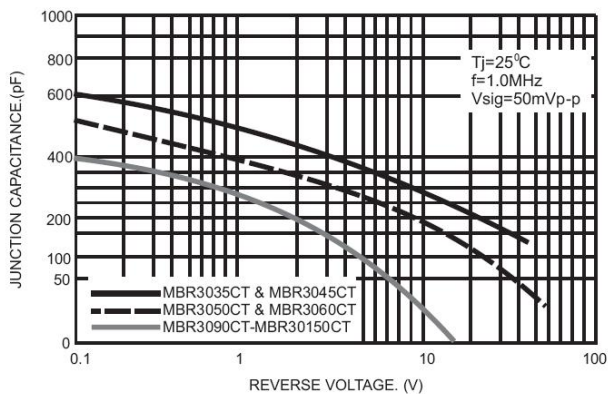
◆ Electrical characteristics

Symbol	Parameters	Min	Typical	Max	Units	Conditions
I_R	Maximum Reverse Leakage Current (Note 1) 最大反向瞬态电流	--	--	5 100	mA	$V_R = V_{RRM}$ $T_C = 25\text{ }^{\circ}\text{C}$ $T_C = 125\text{ }^{\circ}\text{C}$
V_F	Maximum Instantaneous Forward Voltage (Note 2) 最大瞬态正向压降	--	--	0.85 0.75 1.10 1.05	V	$I_F = 15\text{ A}, T_C = 25\text{ }^{\circ}\text{C}$ $I_F = 15\text{ A}, T_C = 125\text{ }^{\circ}\text{C}$ $I_F = 30\text{ A}, T_C = 25\text{ }^{\circ}\text{C}$ $I_F = 30\text{ A}, T_C = 125\text{ }^{\circ}\text{C}$
$R_{th(j-c)}$	Typical Thermal Resistance, Junction to Case 结到外壳的典型热阻	--	--	2.0	°C/W	
dV/dt	Voltage Rate of Change 电压变化率	--	--	10000	V/μs	

Note 1: 2.0μs Pulse Width, f=1.0KHz

Note 2: Pulse Test : 300μs Pulse Width, 1% Duty Cycle

◆ Ratings and Characteristic curves

FIG.1- FORWARD CURRENT DERATING CURVE

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

FIG.3- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER LEG

FIG.4- TYPICAL REVERSE CHARACTERISTICS PER LEG

FIG.5- TYPICAL JUNCTION CAPACITANCE PER LEG

FIG.6- TYPICAL TRANSIENT THERMAL IMPEDANCE PER LEG
