

描述

TO-220 N
N-CHANNEL MOSFET in a TO-220 Plastic Package.

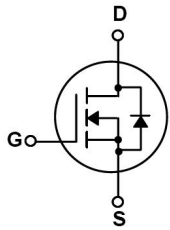
特征

$V_{DS}=60V$ $I_D=225A$
 $R_{DS(on)}@10V$ 2.2m (Type. 1.9m)
 $R_{DS(on)}@4.5V$ 3.5m (Type. 2.5m)
HF Product.

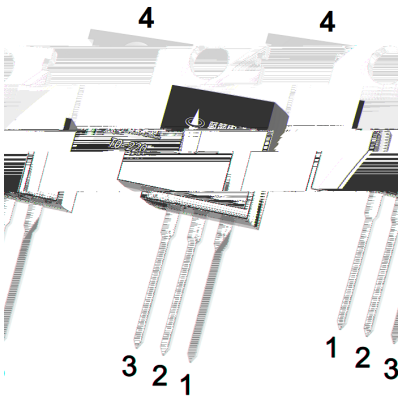
用途

These devices are well suited for high efficient switched mode power supplies, Active power factor correction, electronic lamp ballast based on half bridge topology.

内部等效电路



引脚排列



PIN1 G PIN 2 4 D PIN 3 S

印章代码

See Marking Instructions.

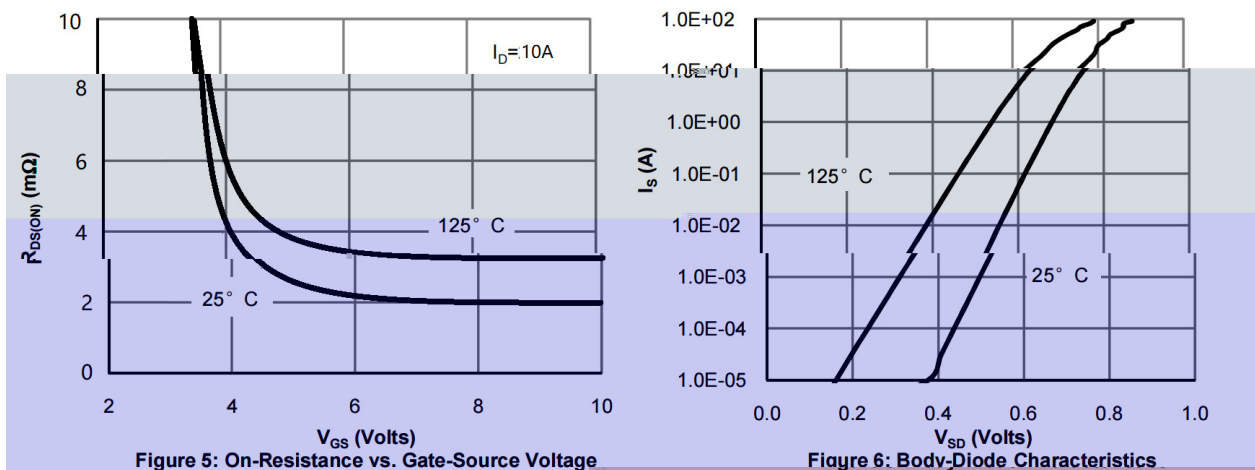
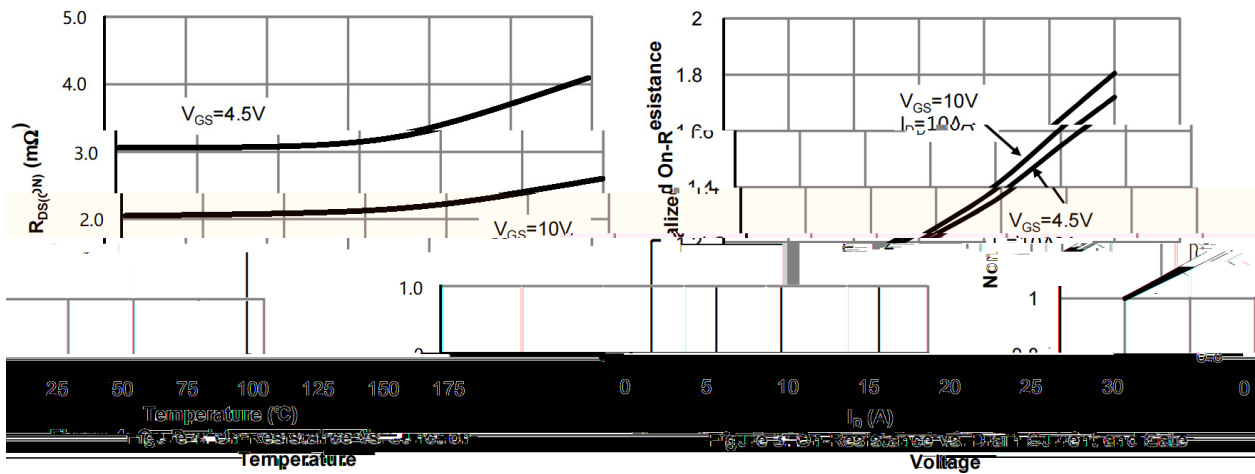
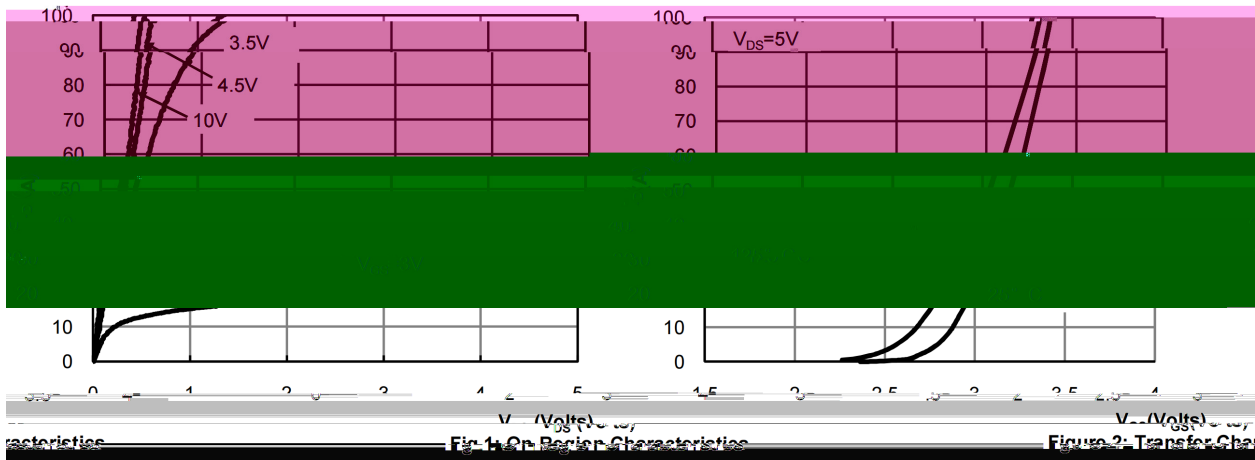
Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DS}	60	V
Drain Current	$I_D(T_c=25^{\circ}\text{C})$	225	A
Pulsed Drain Current	I_{DM}	646	A
Gate-Source Voltage	V_{GS}	± 20	V
Single Pulsed Avalanche Energy $L=0.5\text{mH}$	E_{AS}	380	mJ
Avalanche Current	I_{AS}	30.8	A
Total Power Dissipation	$P_D(T_c=25^{\circ}\text{C})$	125	W

电性能参数

°C

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Total Gate Charge	$Q_g(10V)$	$V_{GS}=10V$ $I_D=20A$ $V_{DS}=30V$		60		nC
Total Gate Charge	$Q_g(4.5V)$			23		
Gate Source Charge	Q_{gs}			16		
Gate Drain Charge	Q_{gd}			3		
Turn-On Delay Time	$t_{d(on)}$	$V_{GS}=10V$ $R_L=1$ $V_{DS}=20V$ $R_{GEN}=3$		13		ns
Turn-On Rise Time	t_r			4		
Turn-Off Delay Time	$t_{d(off)}$			47		
Turn-Off Fall Time	t_f			6.5		

电参数曲线图



电参数曲线图

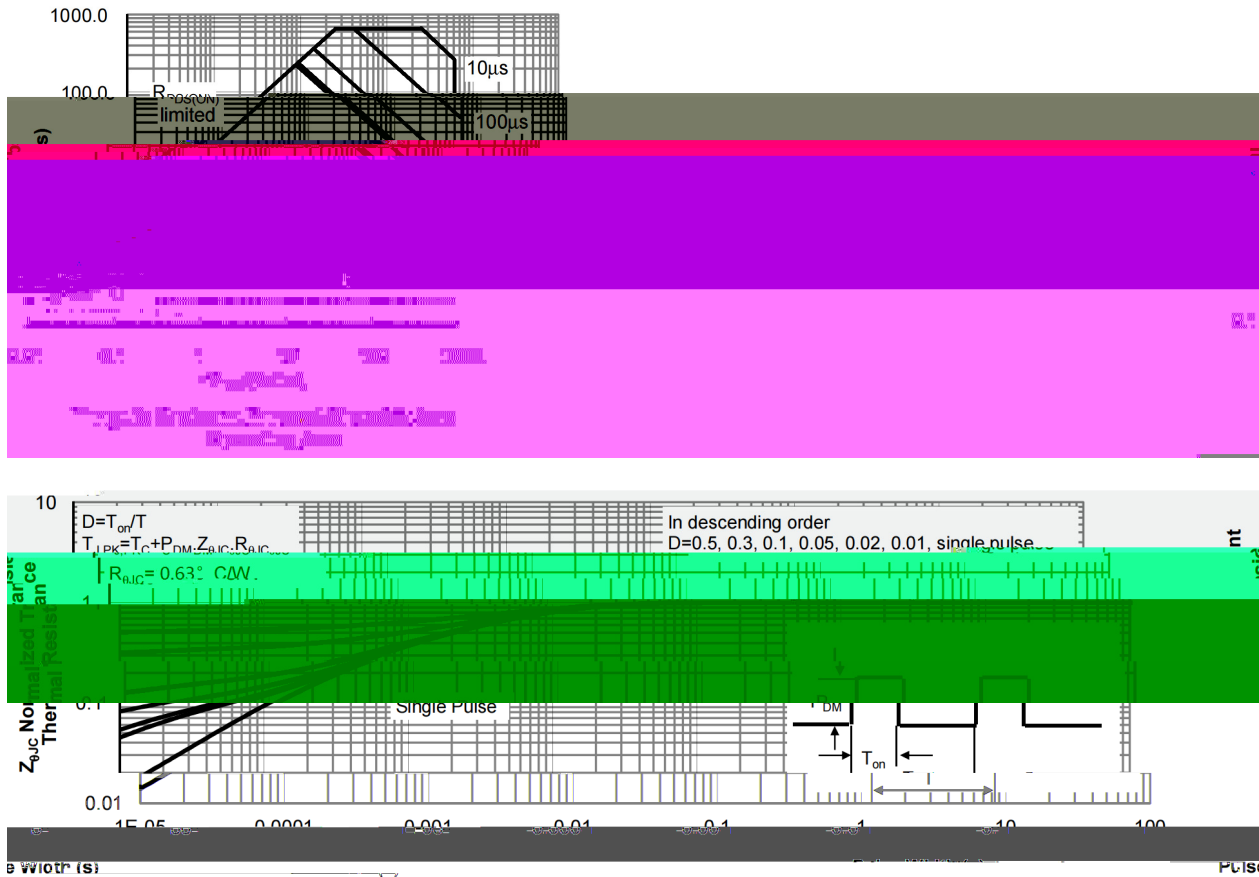
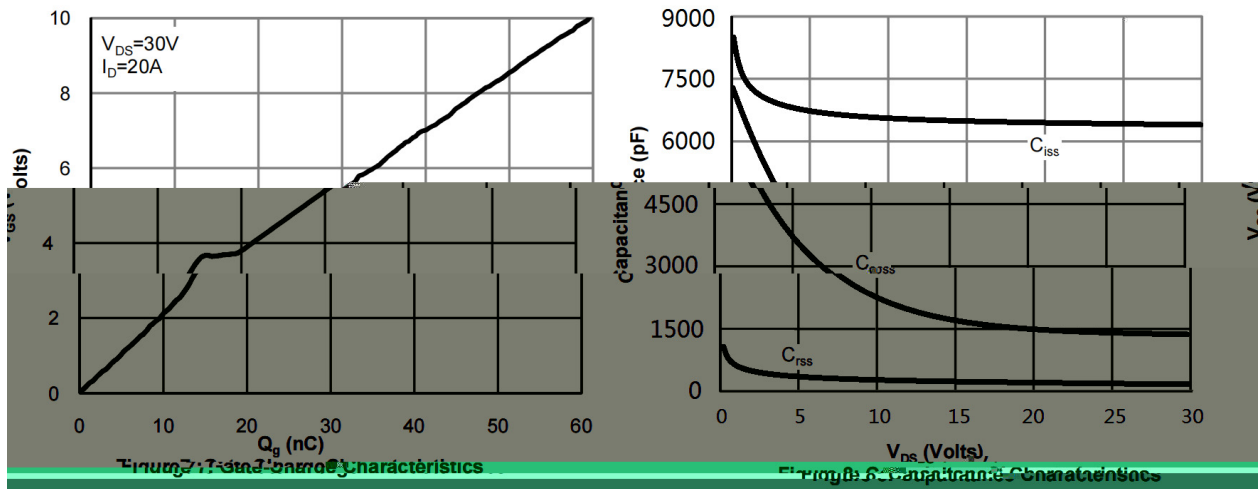
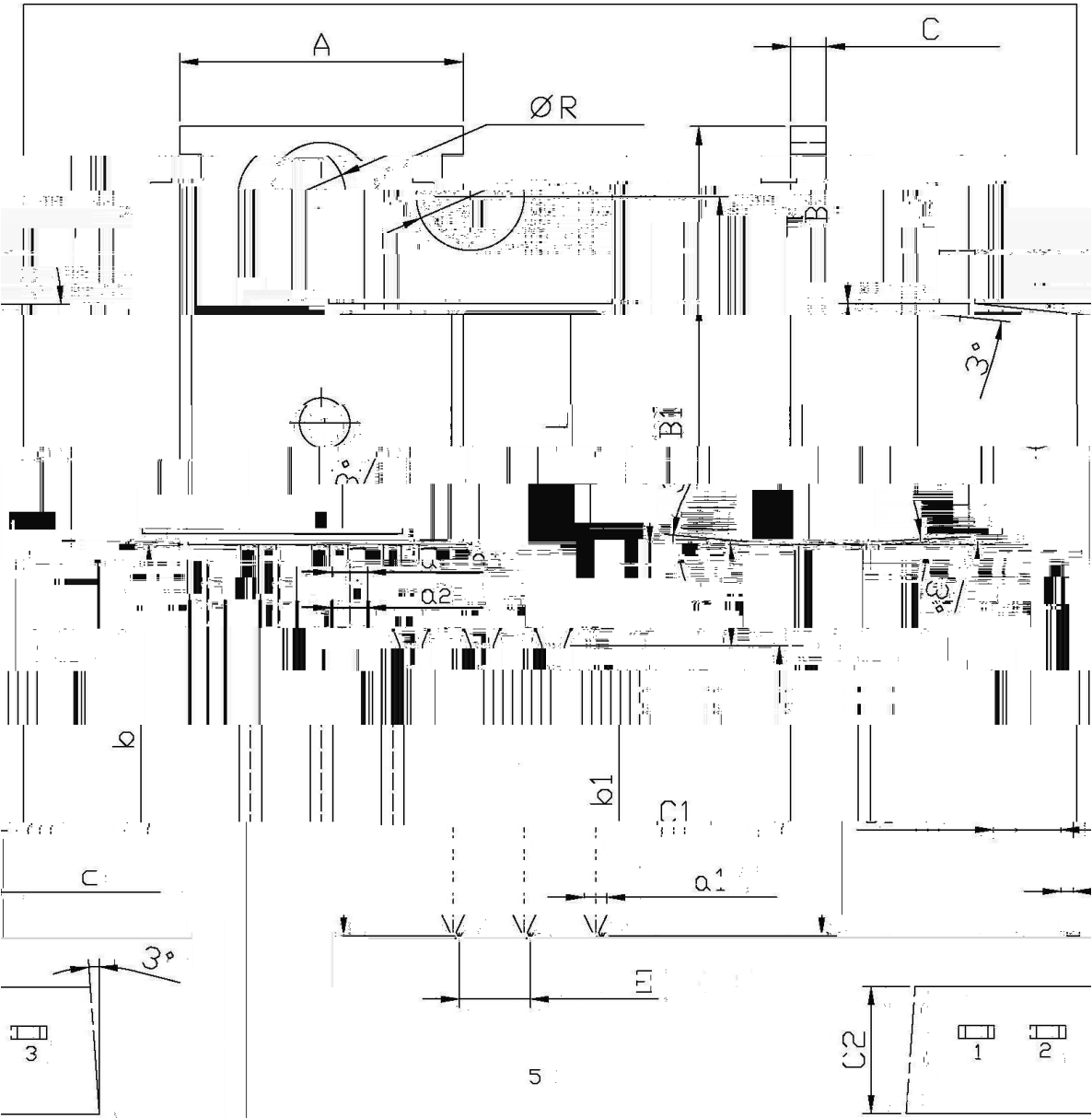


Figure 10: Normalized Maximum Transient Thermal Impedance

外形尺寸图

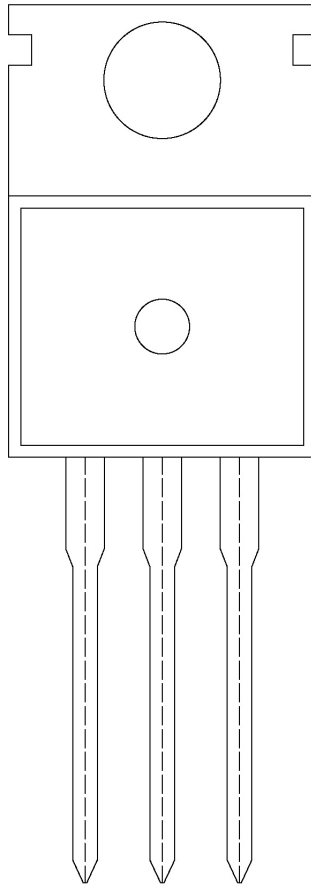
T□-220

单位: mm



Dimensions In Millimeters				Dimensions In Millimeters			
Max	Symbol	Min		Max	Symbol	Min	
1.4	A	9.8		10.2	C	1.2	
6.7	R	3.56		3.64	B	6.3	
9.4		15.7		16.4	B1	9.0	
2.6	b	12.6		13.6	C2	2.2	

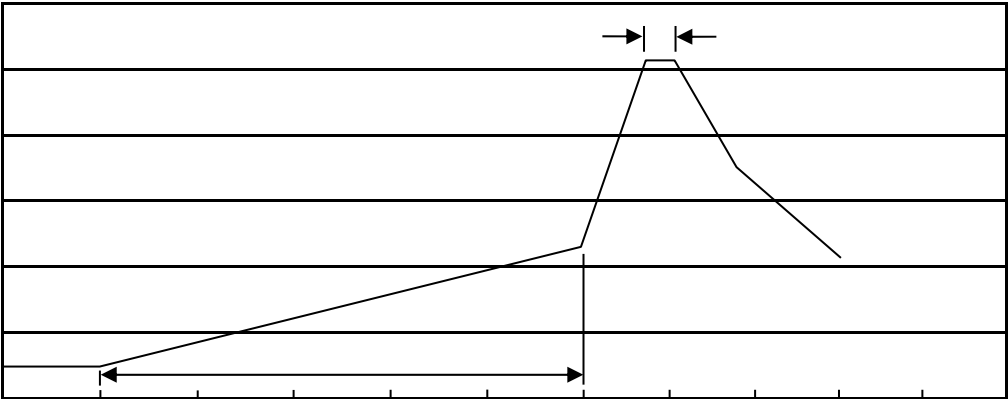
印章说明



Note:

BR: Company Code

波峰焊温度曲线图 无铅



- 1

25 150

60 90sec;
- 2

255 5

5 0.5sec;
- 3

2 10

/sec.

- Note:
- 1.Preheating:25~150

, Time:60~90sec.
- 2.Peak Temp.:255 5

, Duration:5 0.5sec.
3. Cooling Speed: 2~10

/sec.

耐焊接热试验条件

270 5

10 1 sec.

Temp.:270±5℃

Time:10±1 sec

包装规格

/ BULK

Package Type	Units					Dimension (unit mm ³)		
	Units/Bag /	Bags/Inner Box /	Units/Inner Box /	Inner Boxes/Outer Box /	Units/Outer Box /	Bag	Inner Box	Outer Box
TO-220/F	200	10	2,000	5	10,000	135×190	237×172×102	560×245×195

/ TUBE

Package Type	Units					Dimension (unit mm ³)		
	Units/Tube /	Tubes/Inner Box /	Units/Inner Box /	Inner Boxes/Outer Box /	Units/Outer Box /	Tube	Inner Box	Outer Box
TO-220/F	50	20	1,000	5	5,000	532×31.4×5.5	555×164×50	575×290×180

使用说明