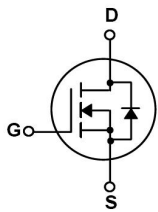


TO-220F      N      MOS      N-CHANNEL MOSFET in a TO-220F Plastic Package.

Low gate charge, low crss, fast switching.

These devices are well suited for high efficiency switching DC/DC converters and switch mode power supplies.



PIN1 G

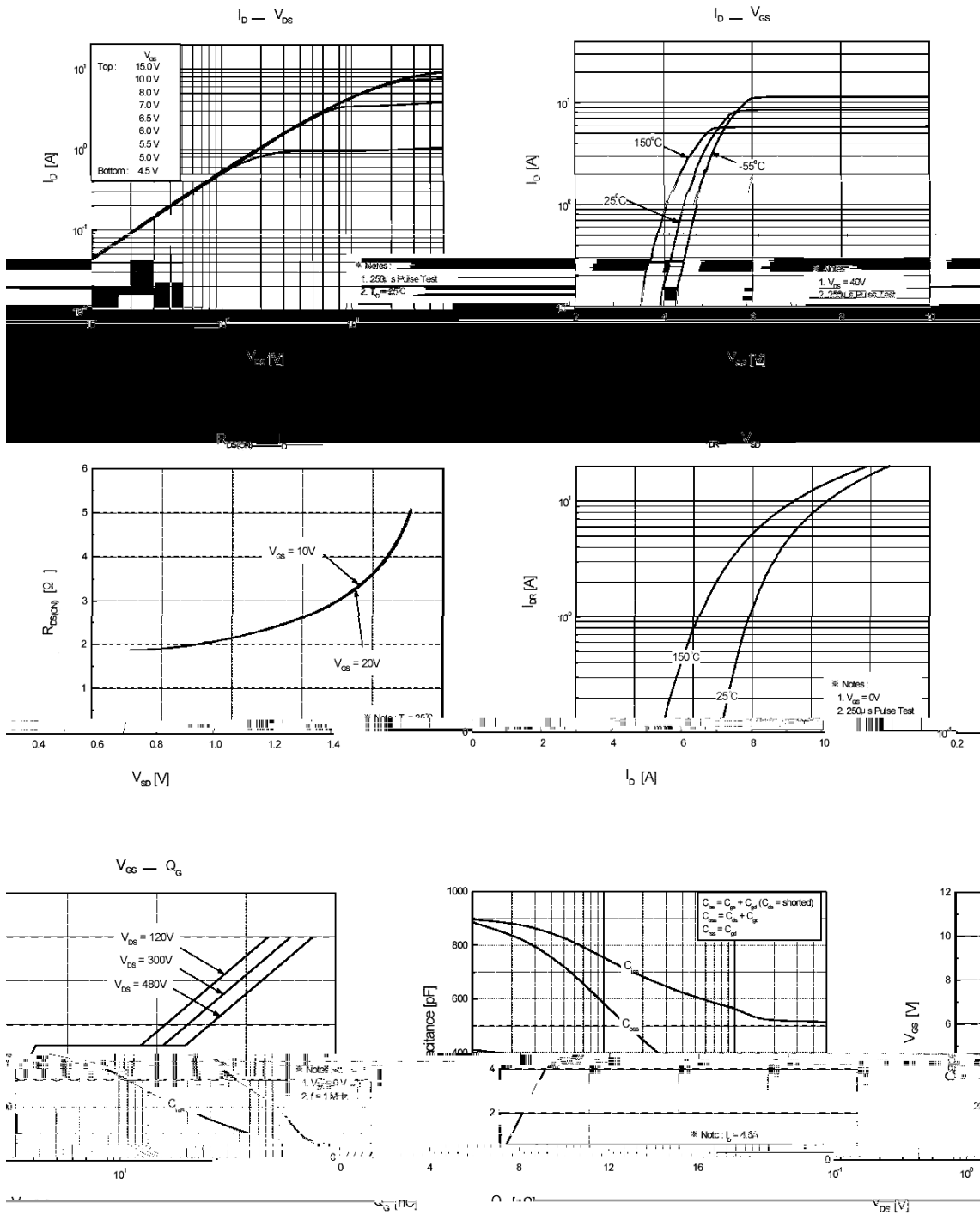
PIN 2 D

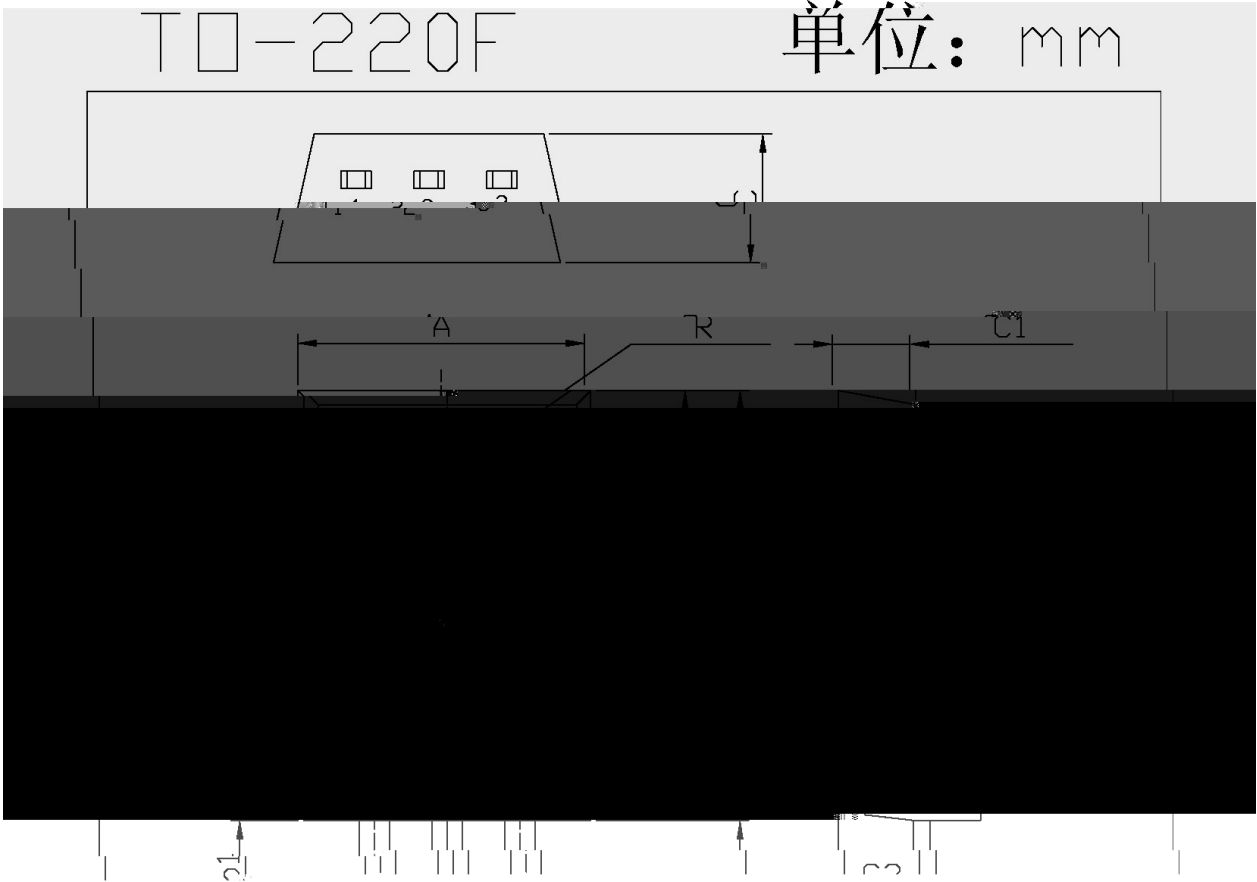
PIN 3 S

See Marking Instructions.

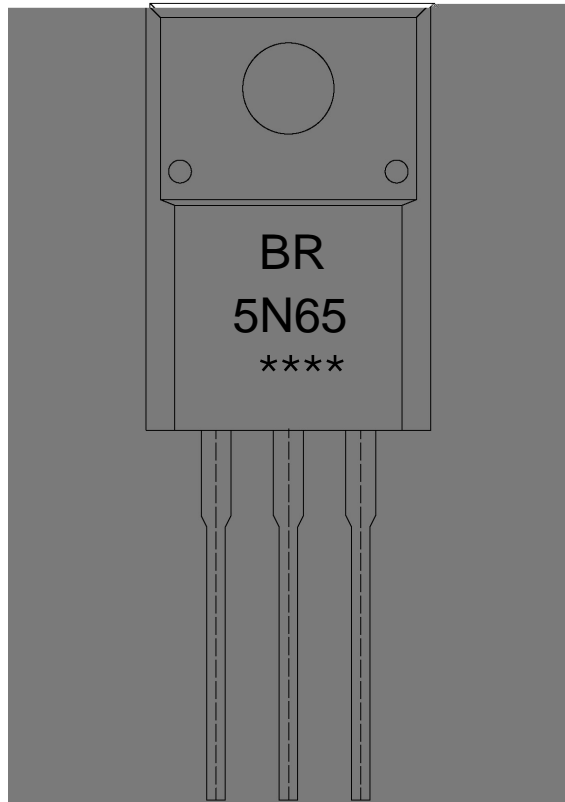
Parameter	Symbol	Rating	Unit
Drain-Source Voltage	$V_{DSS}$	650	V
Drain Current	$I_D(T_C=25^\circ C)$	5.0	A
Drain Current	$I_D(T_C=100^\circ C)$	2.6	A
Drain Current - Pulsed	$I_{DM}$	18	A
Gate-Source Voltage	$V_{GSS}$	$\pm 30$	V
Single Pulsed Avalanche Energy	$E_{AS}$	210	mJ
Repetitive Avalanche Energy	$E_{AR}$	10	mJ
Avalanche Current	$I_{AR}$	4.5	A
Power Dissipation	$P_D(T_C=25^\circ C)$	54	W
Operating and Storage Temperature Range	$T_J, T_{STG}$	-55 to 150	

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	$BV_{DSS}$	$V_{GS}=0V$ $I_D=250\mu A$	650			V
Zero Gate Voltage Drain Current	$I_{DSS}$	$V_{DS}=650V$ $V_{GS}=0V$			1.0	$\mu A$
		$V_{DS}=480V$ $T_C=125$			10	$\mu A$
Gate-Body Leakage Current, Forward	$I_{GSS}$	$V_{GS}=\pm 30V$ $V_{DS}=0V$			$\pm 0.1$	$\mu A$
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS}=V_{GS}$ $I_D=250\mu A$	2.0		4.0	V
Static Drain-Source On-Resistance	$R_{DS(on)}$	$V_{GS}=10V$ $I_D=2.25A$		2.0	2.5	$\Omega$
Forward Transconductance	$g_{FS}$	$V_{DS}=40V$ $I_D=2.25A$		4.7		S
Drain-Source Diode Forward Voltage	$V_{SD}$	$V_{GS}=0V$ $I_S=4.5A$			1.4	V
Input Capacitance	$C_{iss}$	$V_{DS}=25V$ $V_{GS}=0V$ $f=1.0MHz$		515	670	pF
Output Capacitance	$C_{oss}$			55	72	pF
Reverse Transfer Capacitance	$C_{rss}$			6.5	8.5	pF
Turn-On Delay Time	$t_{d(on)}$	$V_{DD}=300V$ $I_D=4.5A$ $R_G=25\Omega$		10	30	ns
Turn-On Rise Time	$t_r$			42	90	ns
Turn-Off Delay Time	$t_{d(off)}$			38	85	ns
Turn-Off Fall Time	$t_f$			46	100	ns





Symbol	Dimensions in Millimeters		Symbol	Dimensions in Millimeters	
	Min	Max		Min	Max
C	4.3	4.7	b1	2.9	3.9
A	9.7	10.3	a	0.55	0.75
B	14.7	15.3	E	2.29	2.79
B1	3.8	4.0	E1	2.29	2.79
R2	2.9	3.1	C1	2.5	2.9
R	3.0	3.4	C2	2.5	2.7
b	12.5	13.5	c	0.5	0.7



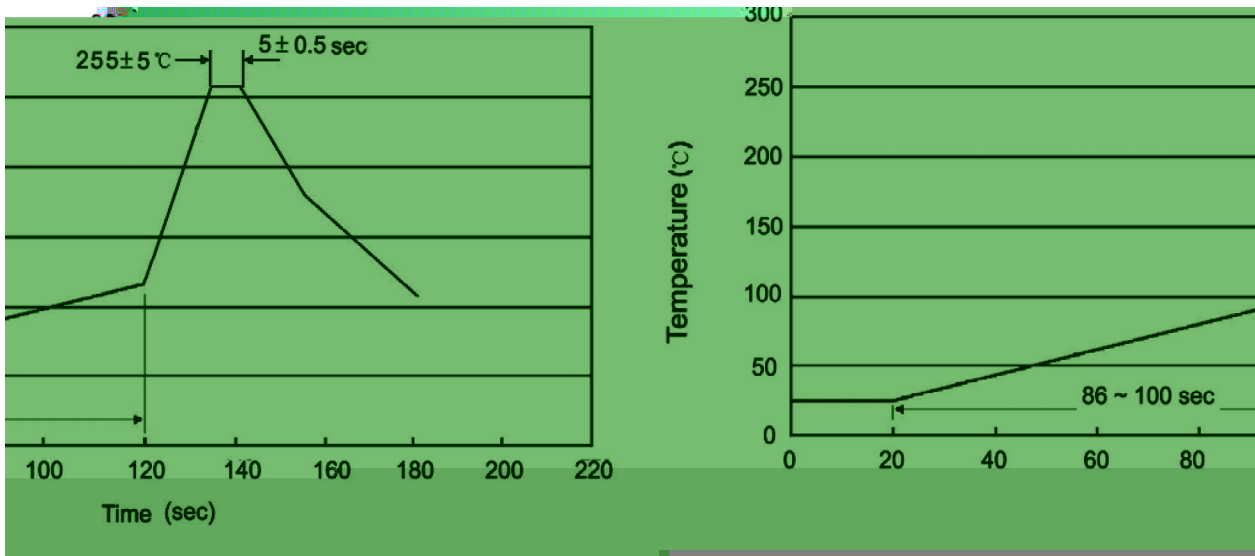
BR  
5N65

Note:

BR: Company Code

5N65: Product Type.

\*\*\*\*: Lot No. Code, code change with Lot No.



- |   |     |     |    |         |
|---|-----|-----|----|---------|
| 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.:  $255 \pm 5$  , Duration:  $5 \pm 0.5$ sec.
3. Cooling Speed: 2~10 /sec.

270 5

10 1 sec.

 Temp.:  $270 \pm 5$ 

 Time:  $10 \pm 1$  sec

/ BULK

Package Type 封装形式	Units 包装数量		Dimension 包装尺寸 (unit: mm <sup>3</sup> )
	Units/Bag 只/袋	Bags/Inner Box 袋/盒	
	Units/Inner Box 只/盒	In	