

描述 / Descriptions

TO-262 塑封封装 N 沟道 MOS 场效应管。N-CHANNEL MOSFET in a TO-262 Plastic Package.

特征 / Features

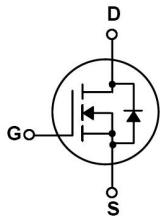
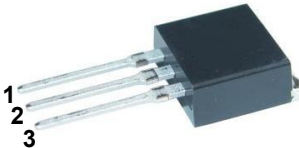
低栅电荷,低反馈电容,开关速度快。

Low gate charge, low crss, fast switching.

用途 / Applications

用于高功率 DC/DC 转换和功率开关。

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

内部等效电路 / Equivalent Circuit**引脚排列 / Pinning**

PIN1 : G

PIN 2 : D

PIN 3 : S

放大及印章代码 / h_{FE} Classifications & Marking

见印章说明。See Marking Instructions

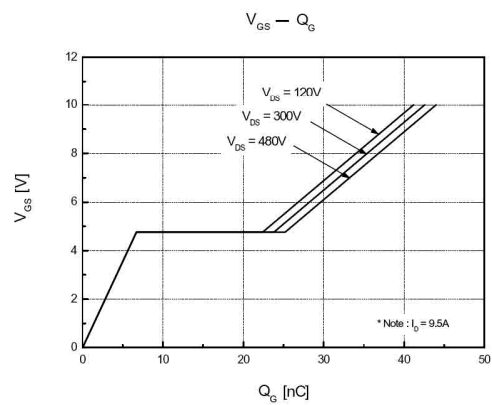
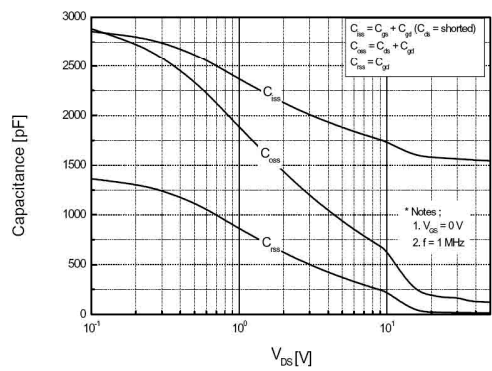
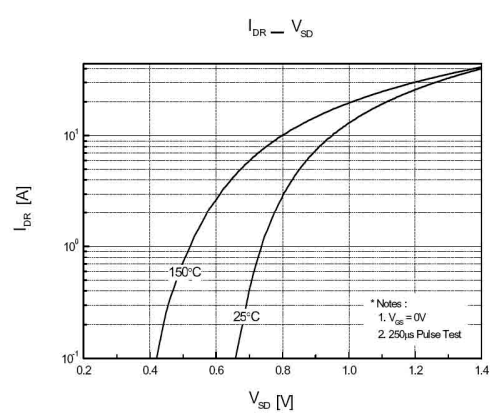
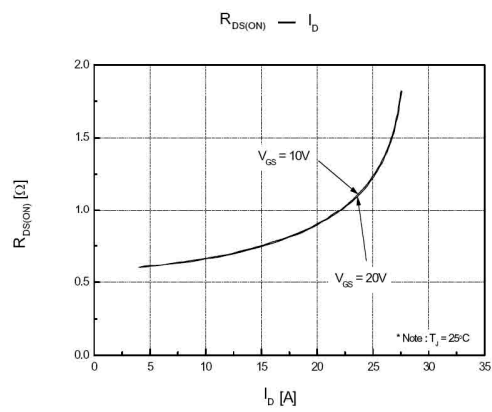
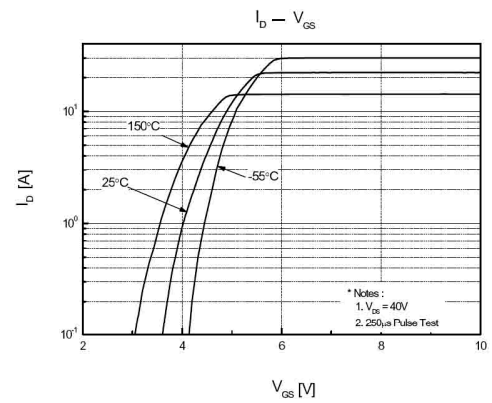
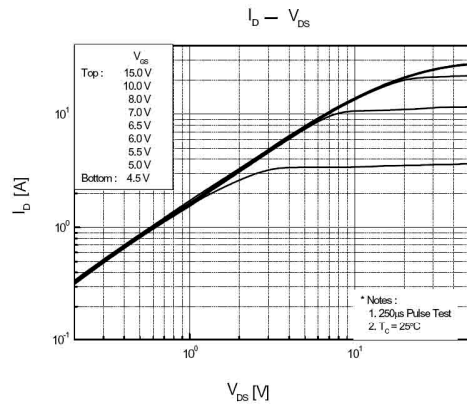
极限参数 / Absolute Maximum Ratings(Ta=25°C)

参数 Parameter	符号 Symbol	数值 Rating	单位 Unit
Drain-Source Voltage	V_{DSS}	650	V
Drain Current	$I_D(T_c=25^{\circ}C)$	9.5	A
Drain Current	$I_D(T_c=100^{\circ}C)$	5.7	A
Drain Current - Pulsed	I_{DM}	38	A
Gate-Source Voltage	V_{GSS}	± 20	V
Single Pulsed Avalanche Energy	E_{AS}	700	mJ
Repetitive Avalanche Energy	E_{AR}	15.6	mJ
Avalanche Current	I_{AR}	9.5	A
Thermal Resistance, Junction-to-Case	$R_{\theta JC}$	2.5	$^{\circ}C/W$
Thermal Resistance, Junction-to-Ambient	$R_{\theta JA}$	62.5	$^{\circ}C/W$
Power Dissipation	$P_D(T_c=25^{\circ}C)$	156	W
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to 150	$^{\circ}C$

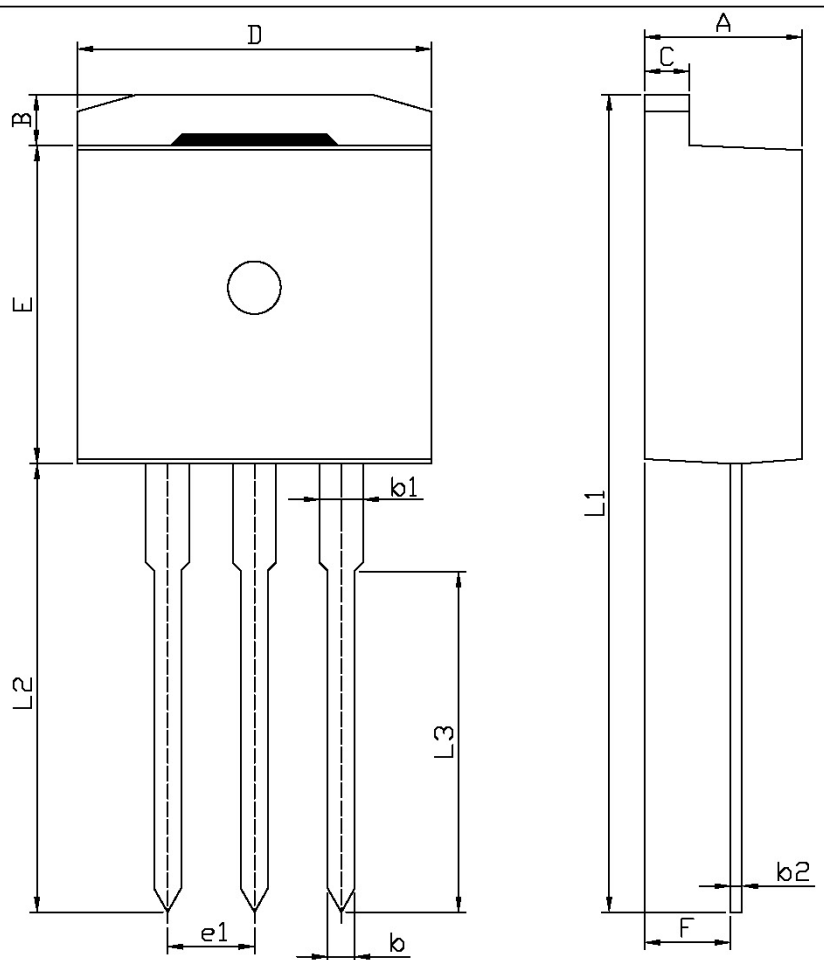
电性能参数 / Electrical Characteristics(Ta=25°C)

参数 Parameter	符号 Symbol	测试条件 Test Conditions	最小值 Min	典型值 Typ	最大值 Max	单位 Unit
Drain-Source Breakdown Voltage	BV_{DSS}	$V_{GS}=0V$ $I_D=250\mu A$	650			V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS}=600V$ $V_{GS}=0V$			1.0	μA
		$V_{DS}=480V$ $T_c=125^{\circ}C$			10	μA
Gate-Body Leakage Current Forward	I_{GSS}	$V_{GS}=\pm 20V$ $V_{DS}=0V$			± 10	μA
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	$R_{DS(on)}$	$V_{GS}=10V$ $I_D=4.75A$		0.75	0.85	Ω
Forward Transconductance	g_{FS}	$V_{DS}=40V$ $I_D=4.75A$		8.0		S
Drain-Source Diode Forward Voltage	V_{SD}	$V_{GS}=0V$ $I_S=9.5A$			1.4	V
Input Capacitance	C_{iss}	$V_{DS}=25V$ $V_{GS}=0V$ $f=1.0MHz$		1570	2040	pF
Output Capacitance	C_{oss}			166	215	pF
Reverse Transfer Capacitance	C_{rss}			18	24	pF
Turn-On Delay Time	$t_{d(on)}$	$V_{DD}=300V$ $I_D=9.5A$ $R_G=25\Omega$		23	55	ns
Turn-On Rise Time	t_r			69	150	ns
Turn-Off Delay Time	$t_{d(off)}$			144	300	ns
Turn-Off Fall Time	t_f			77	165	ns

电参数曲线图 / Electrical Characteristic Curve



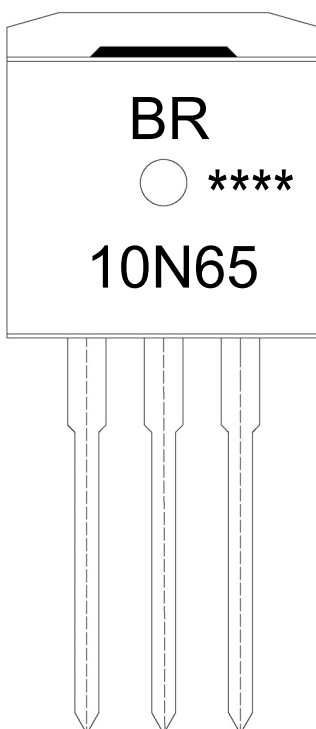
外形尺寸图 / Package Dimensions



单位: mm

Symbol	Dimensions In Millimeters		Symbol	Dimensions In Millimeters	
	Min	Max		Min	Max
A	4.30	4.70	E	9.00	9.40
B	1.00	1.40	e1	2.34	2.74
b	0.70	0.90	F	2.20	2.60
b1	1.27		L1	22.60	23.60
b2	0.40	0.60	L2	12.60	13.60
C	1.20	1.40	L3	9.60	10.60
D	9.80	10.20			

T0-262

印章说明 / Marking Instructions

说明：

BR： 为公司代码

10N65： 为型号代码

****： 为生产批号代码，随生产批号变化。

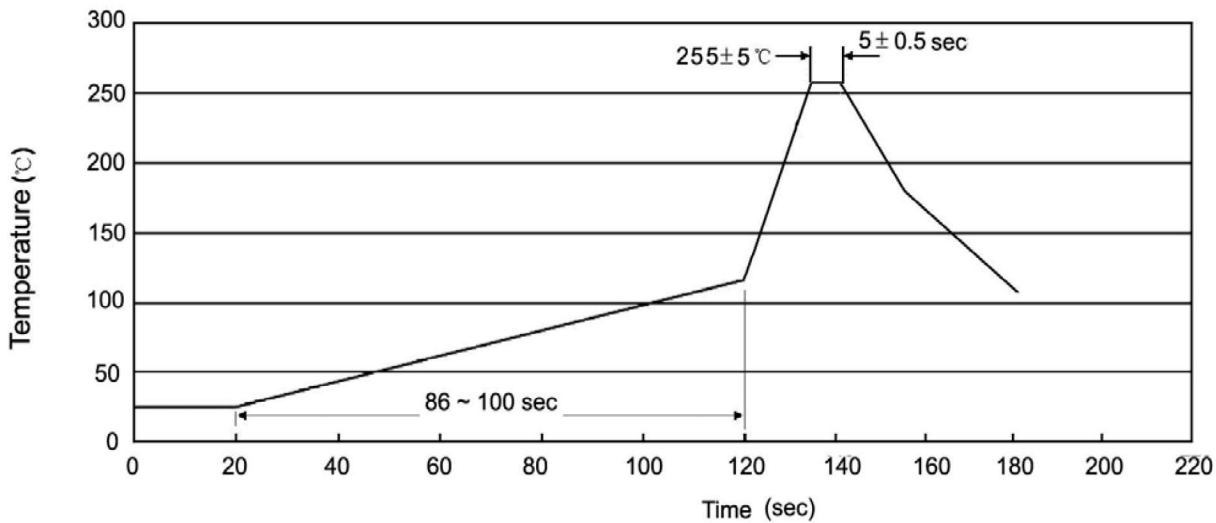
Note:

BR: Company Code

10N65: Product Type.

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

回流焊温度曲线图(无铅) / Temperature Profile for IR Reflow Soldering(Pb-Free)



- 说明：

 - 1、预热温度 25 ~ 150℃，时间 60 ~ 90sec;
 - 2、峰值温度 255±5℃，时间持续为 5±0.5sec;
 - 3、焊接制程冷却速度为 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 / Resistance to Soldering Heat Test Conditions

温度：270±5℃ 时间：10±1 sec. Temp.:270±5℃ Time:10±1 sec

包装规格 / Packaging SPEC.

套管包装 / TUBE

Package Type 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm ³)		
	Units/Reel 只/卷盘	Reels/Inner Box 卷盘/盒	Units/Inner Box 只/盒	Inner Boxes/Outer Box 盒/箱	Units/Outer Box 只/箱	Reel	Inner Box 盒	Outer Box 箱
TO-262	50	20	1,000	5	5,000	532×31.4×5.5	555×164×50	575×290×180

使用说明 / Notices