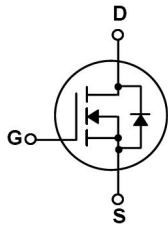


TO-263 N MOS N-CHANNEL MOSFET in a TO-263 Plastic Package.

/ /
Low gate charge, Low Crss , Fast switching.

UPV

High efficiency switch mode power supplies, Electronic lamp ballasts based on half bridge, UPS .

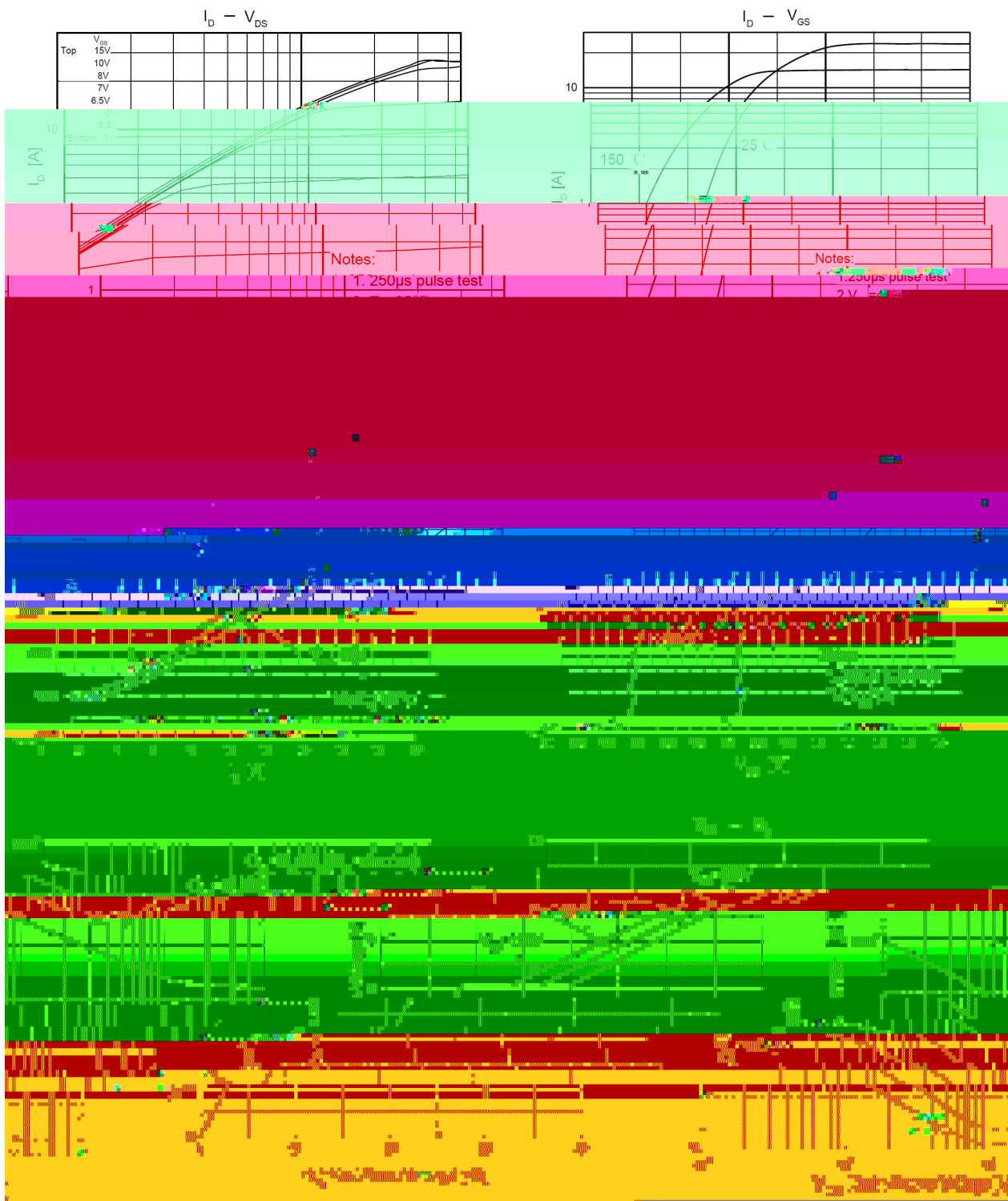


PIN1 G PIN 2 4 D PIN 3 S

See Marking Instructions.

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DSS}	650	V
Drain Current	$I_D(T_C=25^{\circ}C)$	12	A
Drain Current	$I_D(T_C=100^{\circ}C)$	7.6	A
Drain Current - Pulsed	I_{DM}	48	A
Gate-Source Voltage	V_{GSS}	± 30	V
Single Pulsed Avalanche Energy	E_{AS}	880	mJ
Repetitive Avalanche Energy	E_{AR}	25	mJ
Avalanche Current	I_{AR}	12	A
Thermal Resistance, Junction to Case	$R_{\theta JC}$	2.45	/W
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	62.5	/W
Power Dissipation	P_D	156	W
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to 150	

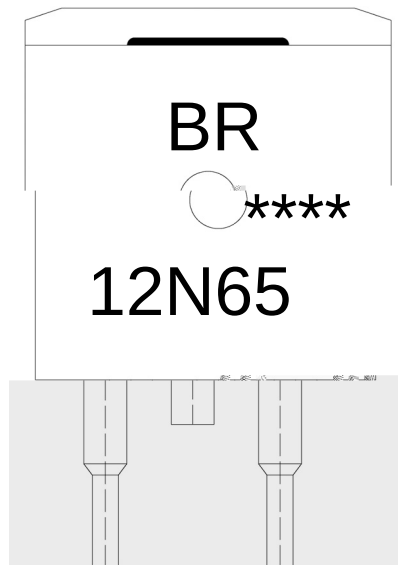
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	BV_{DSS}	$V_{GS}=0V$ $I_D=250\mu A$	650			V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS}=650V$ $V_{GS}=0V$			1.0	μA
Gate-Body Leakage Current Forward	I_{GSS}	$V_{GS}=\pm 30V$ $V_{DS}=0V$			± 100	nA
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS}=V_{GS}$ $I_D=250\mu A$	2.0		4.0	V
Static Drain-Source On-Resistance	$R_{DS(on)}$	$V_{GS}=10V$ $I_D=6A$		0.71	0.78	Ω
Forward Transconductance	g_{FS}	$V_{DS}=40V$ $I_D=6A$		13		S
Drain-Source Diode Forward Voltage	V_{SD}	$V_{GS}=0V$ $I_S=12A$			1.39	V
Input Capacitance	C_{iss}	$V_{DS}=25V$ $V_{GS}=0V$ $f=1.0MHz$		1790	2410	pF
Output Capacitance	C_{oss}			175	229	pF
Reverse Transfer Capacitance	C_{rss}			23	31	pF
Turn-On Delay Time	$t_{d(on)}$	$V_{DD}=300V$ $I_D=12A$ $R_G=25\Omega$		78	102	ns
Turn-On Rise Time	t_r			133	175	ns
Turn-Off Delay Time	$t_{d(off)}$			233	305	ns
Turn-Off Fall Time	t_f			104	160	ns





4.28	B	1.00	1.40	e1	2.34	2.2
6.00	h	0.70	0.90	e2	4.88	5
2.84	b1	1.15	1.35	L1	15.00	1
1.60	h2	0.40	0.60	L2	2.24	2
	C	1.20	1.40	L3	1.20	
	D	9.80	10.20			

TP-263



EU

45N98

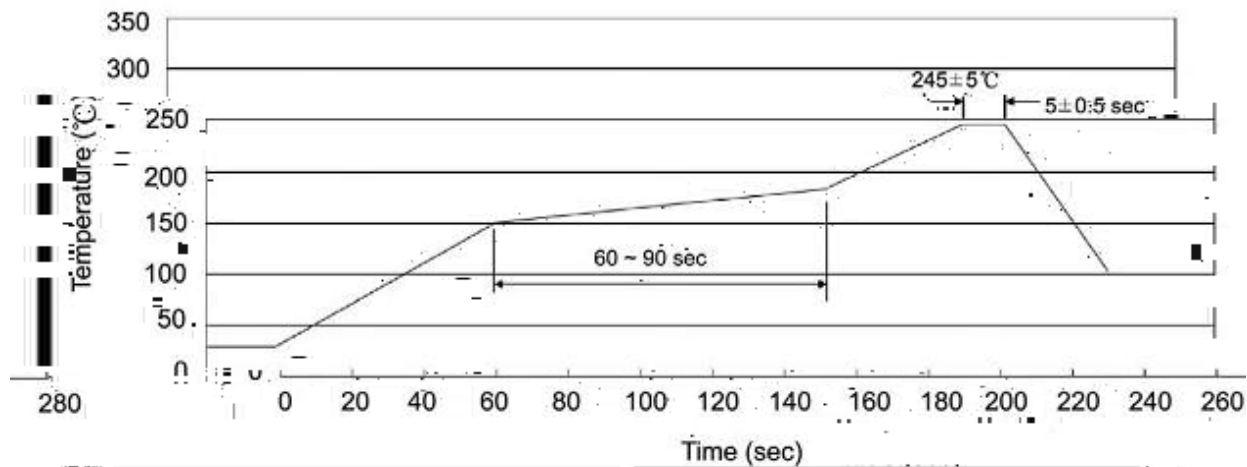
Note:

BR: Company Code

12N65: Product Type.

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

Temperature Profile for IR Reflow Soldering(Pb-Free)



Note:

- 1

150 180

60 90sec;

1.Preheating:150~180 , Time:60~90sec.
- 2

245±5

5±0.5sec;

2.Peak Temp.:245±5 , Duration:5±0.5sec.
- 3

2 10 /sec.

3. Cooling Speed: 2~10 /sec.

260±5 10±1 sec. Temp.:260±5 Time:10±1 sec

/ REEL

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-263	800	1	800	5	4,000	13" ×24	360×360×50	385×257×392

/ TUBE

Package Type 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm ³)		
	Units/Tube 只/套管	Tubes/Inner Box 套管/盒	Units/Inner Box 只/盒	Inner Boxes/Outer Box 盒/箱	Units/Outer Box 只/箱	Tube 套管	Inner Box 盒	Outer Box 箱
TO-263	50	20	1,000	5	5,000	532×33×7.0	555×164×50	575×290×180