

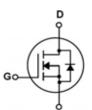
N-CHANNEL MOSFET in a TO-220 Plastic Package.

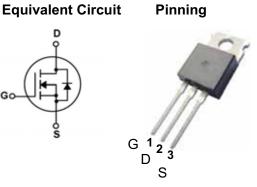
Features

Low gate charge, low crss, fast switching.

Applications

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





Absolute Maximum Ratings(Ta=25 °C)

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DSS}	500	V
Dunin Current	I _D (Tc=25℃)	5.0	А
Drain Current	I _D (Tc=100℃)	3.0	А
Pulsed Drain Current	I _{DM}	20	А
Gate-Source Voltage	V _{GSS}	±30	V
Avalanche Current	I _{AR}	5	А
Single Pulsed Avalanche Energy	E _{AS}	292	mJ
Repetitive Avalanche Energy	E _{AR}	8.75	mJ
Total Power Dissipation	P _D (Tc=25°C)	87.5	W
Junction and Storage Temperature Range	T _J ,T _{STG}	-55 to 150	$^{\circ}$

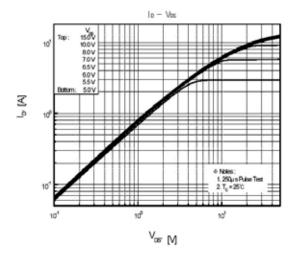
2018-10/33 REV:0

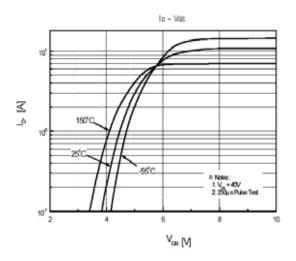
Electrical Characteristics(Ta=25°C)

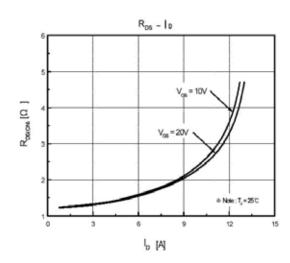
Parameter	Symbol	Test Conditions		Min	Тур	Max	Unit	
Zero Gate Voltage Drain Current	BV _{DSS}	V _{GS} =0V	$I_D=250\mu A$	500			V	
Zana Oata Waltana Dualis Oursel	I _{DSS}	V _{DS} =500V	V _{GS} =0V			10	μA	
Zero Gate Voltage Drain Current		V _{DS} =400V	T _C =125℃			100	μΑ	
Gate-Body Leakage Current Forward	I _{GSS}	V _{GS} =±30V	V _{DS} =0V			±0.1	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 =2.5A		1.15	1.4	Ω	
Forward Transconductance	9 FS	V _{DS} =40V	I _D =2.5A		4.2		S	
Forward On Voltage	V_{SD}	V _{GS} =0V	I _S =5.0A			1.5	V	
Input Capacitance C _{iss}					680	900		
Output Capacitance	C _{oss}	V _{DS} =25V f=1.0MHz	$V_{GS}=0V$		85	110	pF	
Reverse Transfer Capacitance	C _{rss}	1-1.0WH2			15	20		
Turn-On Delay Time	t _{d(on)}				20	50		
Turn-On Rise Time	t _r	V_{DD} =250V R_{G} =25 Ω	I _D =5.0A		40	90		
Turn-Off Delay Time	t _{d(off)}				90	190	ns	
Turn-Off Fall Time	t _f				45	100		

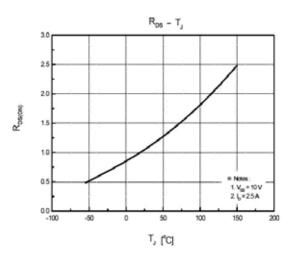


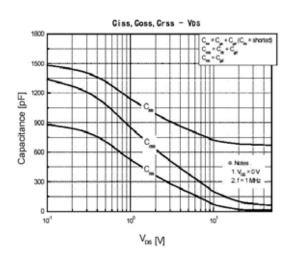
RATING AND CHARACTERISTICS CURVES (RM830)

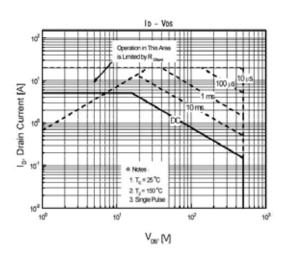






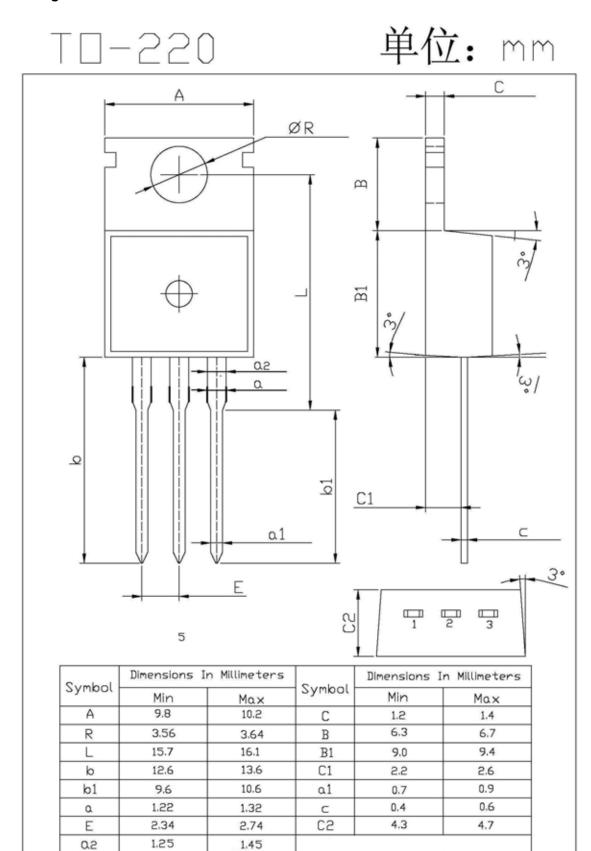






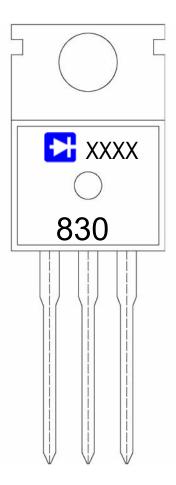


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Marking Instructions



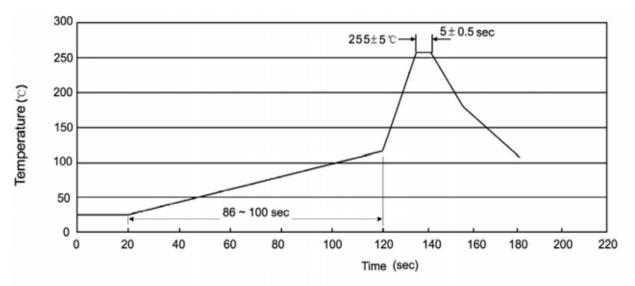
Note:

830: Product Type.

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



Temperature Profile for Dip Soldering(Pb-Free)



1.Preheating:25~150 °C, Time:60~90sec.

2.Peak Temp.:255 ±5°C, Duration:5±0.5sec.

3.Cooling Speed: 2~10°C/sec.

Resistance to Soldering Heat Test Conditions

Temp.:270 \pm 5 °C Time:10 \pm 1 sec

Packaging SPEC.

BULK

Units					Dimer	nsion	(unit: mm ³)	
Package Type	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

Units 包装数量					Dimensio	on (unit: mm³)		
Package Type	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



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