/ Descriptions

TO-252 N MOS N-CHANNEL MOSFET in a TO-252 Plastic Package.

/ Features

DS dv/dt

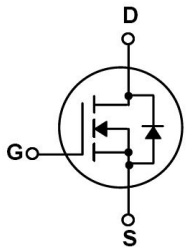
Low $R_{DS(ON)}$, Low gate charge, Low Crss , Fast switching, Improved dv/dt capability.

/ Applications

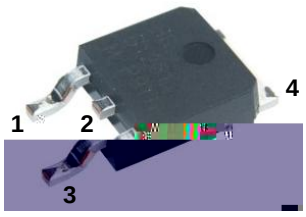
DC/DC

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

/ Equivalent Circuit



/ Pinning



PIN1 G PIN 2 D PIN 3 S PIN 4 D

/ h_{FE} Classifications & Marking

See Marking Instructions.

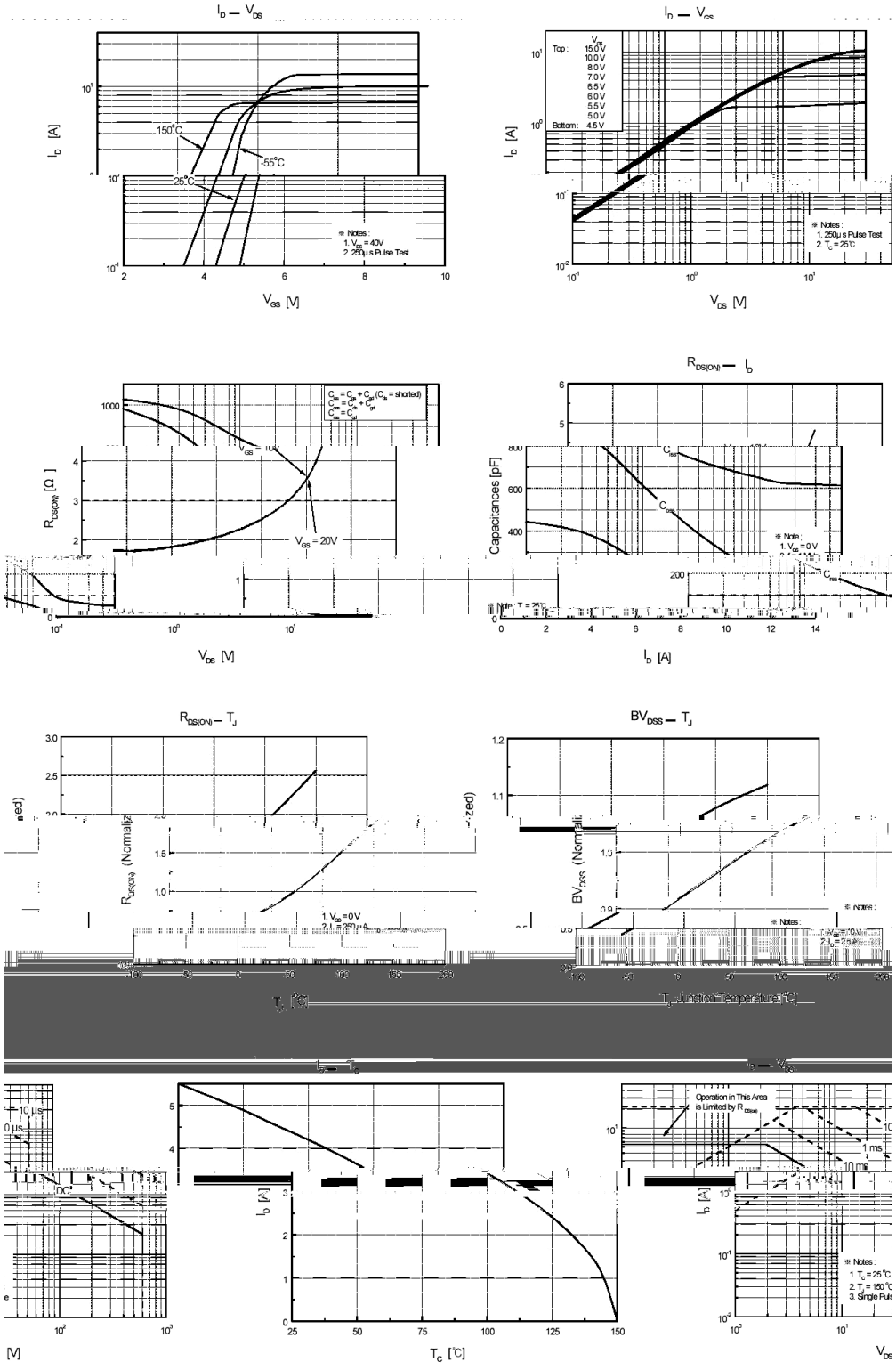
/ Absolute Maximum Ratings(Ta=25)

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DSS}	600	V
Drain Current	I_D(Tc=25℃)	5.5	A
Drain Current	I_D(Tc=100℃)	3.3	A
Drain Current - Pulsed	I_{DM}	22	A
Gate-Source Voltage	V_{GSS}	±30	V
Single Pulsed Avalanche Energy	E_{AS}	300	mJ
Repetitive Avalanche Energy	E_{AR}	12.5	mJ
Avalanche Current	I_{AR}	5.5	A
Power Dissipation	P_D(Tc=25℃)	40	W
Operating and Storage Temperature Range	T_J,T_{STG}	-55 to 150	

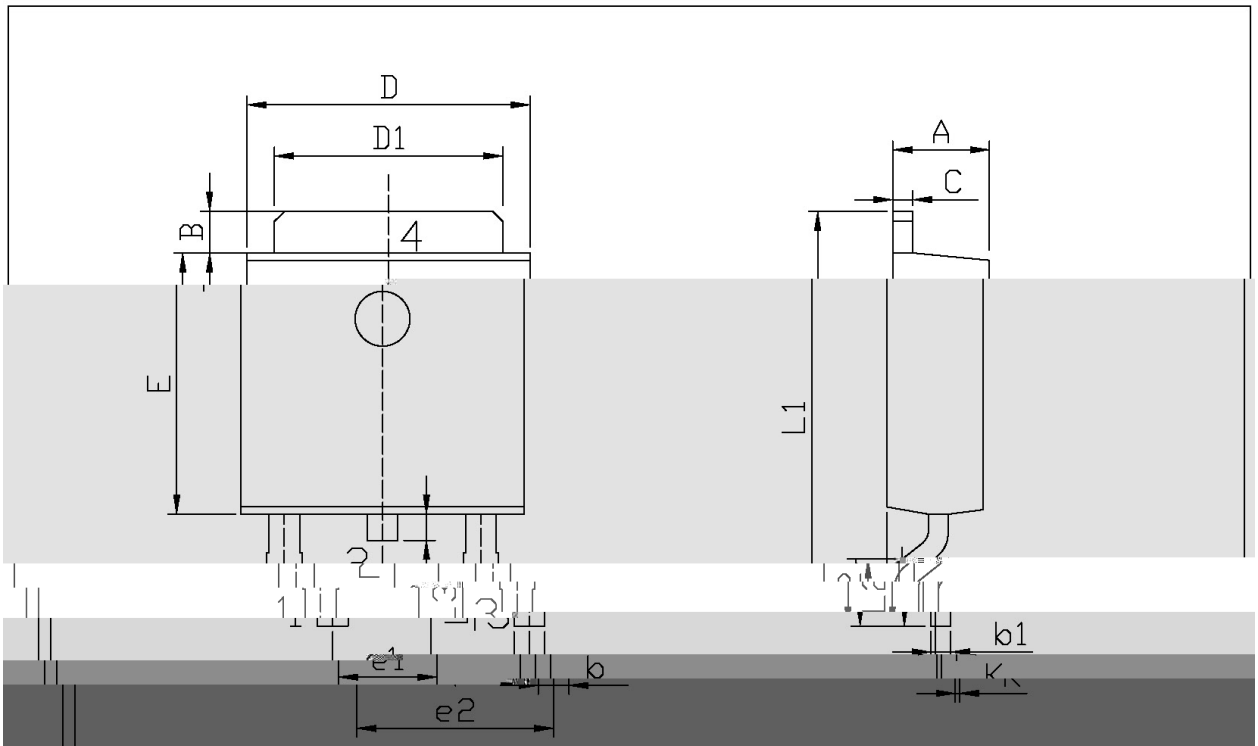
/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions		Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	BV_{DSS}	V_{GS}=0V	I_D=250μA	600			V
Zero Gate Voltage Drain Current	I_{DSS}	V_{DS}=600V	V_{GS}=0V			1	μA
		V_{DS}=480V	T_C=125℃			10	μA
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=250μA	2.0		4.0	V
Static Drain-Source On-Resistance	$R_{DS(on)}$	V_{GS}=10V	I_D=2.75A		1.7	2.0	Ω
Forward Transconductance	g_{FS}	V_{DS}=40V	I_D=2.75A		4.8		S
Drain-Source Diode Forward Voltage	V_{SD}	V_{GS}=0V	I_S=5.5A			1.4	V
Input Capacitance	C_{iss}	V_{DS}=25V f=1.0MHz	V_{GS}=0V		620	810	pF
Output Capacitance	C_{oss}				65	85	
Reverse Transfer Capacitance	C_{rss}				7	10	
Turn-On Delay Time	$t_{d(on)}$	V_{DD}=300V R_G=25Ω	I_D=5.5A		15	40	ns
Turn-On Rise Time	t_r				45	100	
Turn-Off Delay Time	$t_{d(off)}$				45	100	
Turn-Off Fall Time	t_f				45	100	

/ Electrical Characteristic Curve



/ Package Dimensions

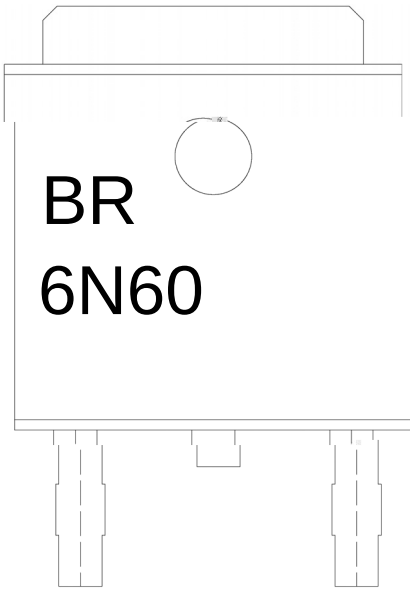


单位：mm

Dimensions In Millimeters			Dimensions In Millimeters		
Symbol	Min	Max	Symbol	Min	Max
A	2.20	2.40	E	5.95	6.25
B	0.95	1.25	e1	2.24	2.34
b	0.50	0.70	e2	4.43	4.73
b1	0.45	0.55	L1	0.45	0.95
c	0.45	0.55	L2	1.25	
D	6.45	6.75	L3	0.60	
D1	5.10	5.50	K	0.00	

TO-252

/ Marking Instructions



BR

6N60

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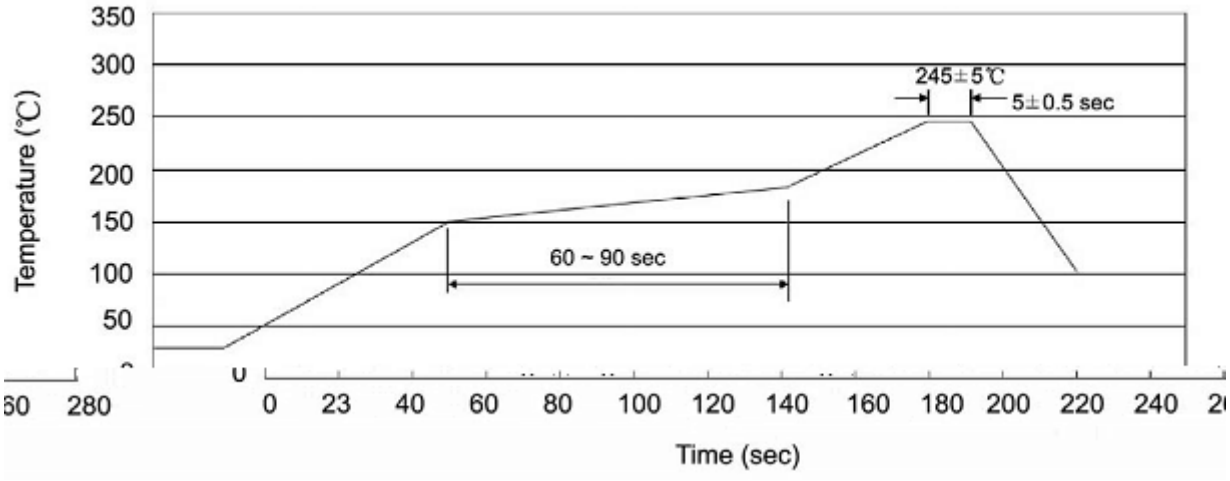
Note:

BR:	Company Code
6N60:	Product Type.
****:	Lot No. Code, code change with Lot No.

( ) /



Note:

1	25	150	60	90sec;	1.Preheating:25~150 , 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.

/ Resistance to Soldering Heat Test Conditions

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

/ Packaging SPEC.

/ REEL

Package Type 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm^3)		
	只 卷盘	卷盘 盒	只 盒	盒 箱	只 箱		盒	箱
						〃		

/ TUBE

Package Type 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm^3)		
	只 套管	套管 盒	只 盒	盒 箱	只 箱	套管	盒	箱

/ Notices