/ Descriptions

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

/ Features

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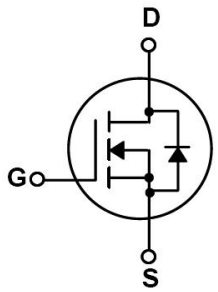
Low gate charge, low crss, fast switching.

/ Applications

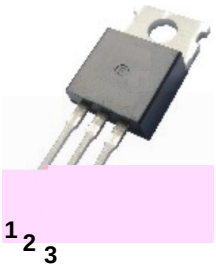
DC/DC

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

/ h_{FE} Classifications & Marking

See Marking Instructions.

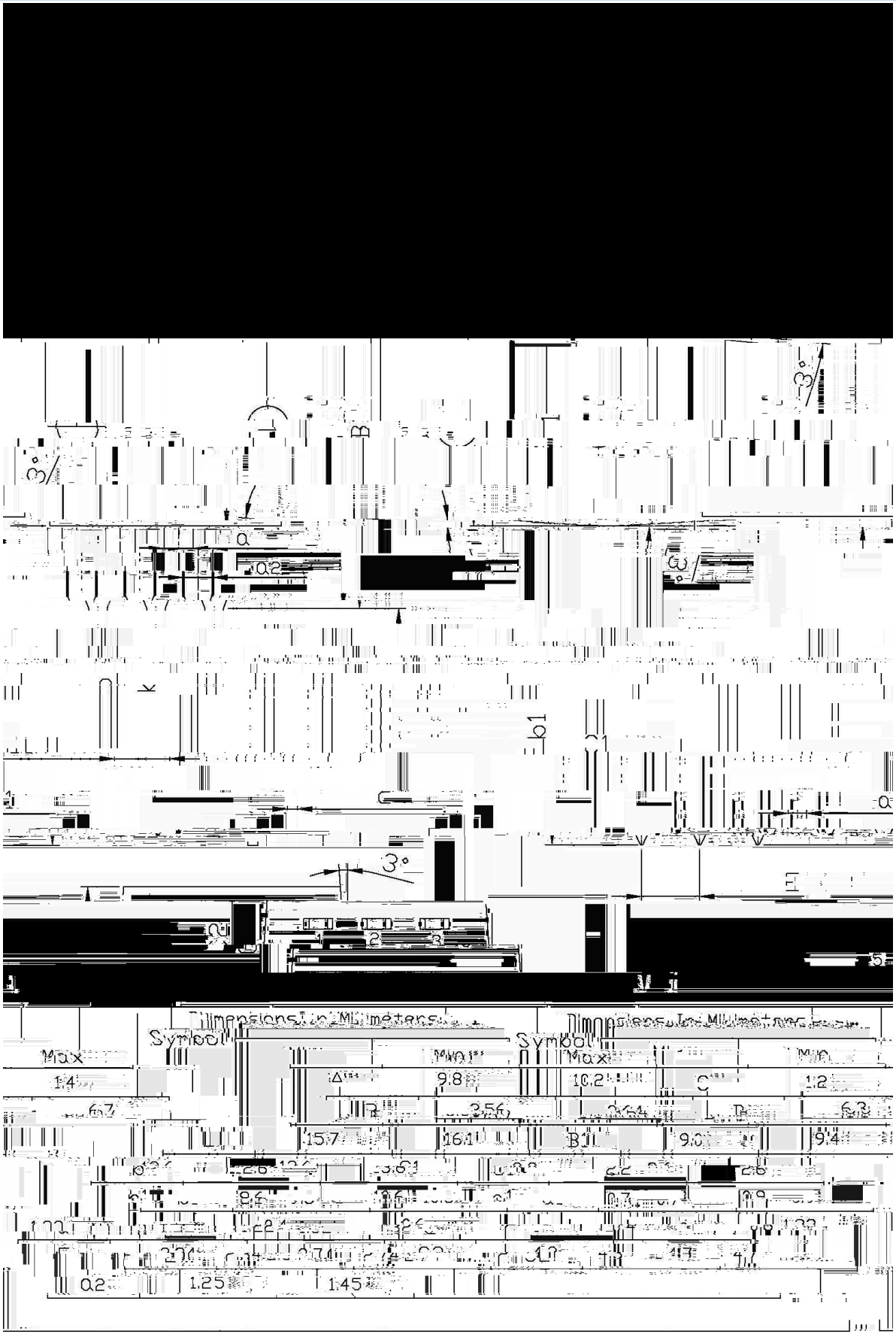
/ Absolute Maximum Ratings(Ta=25)

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DSS}	600	V
Drain Current	I_D(Tc=25)	2.0	A
	I_D(Tc=100)	1.3	A
Drain Current - Pulsed	I_{DM}	6.0	A
Gate-Source Voltage	V_{GSS}	±30	V
Single Pulsed Avalanche Energy	E_{AS}	120	mJ
Repetitive Avalanche Energy	E_{AR}	5.4	mJ
Avalanche Current	I_{AR}	2.0	A
Power Dissipation	P_D(Tc=25)	54	W
Operating and Storage Temperature Range	T_J,T_{STG}	-55 to 150	

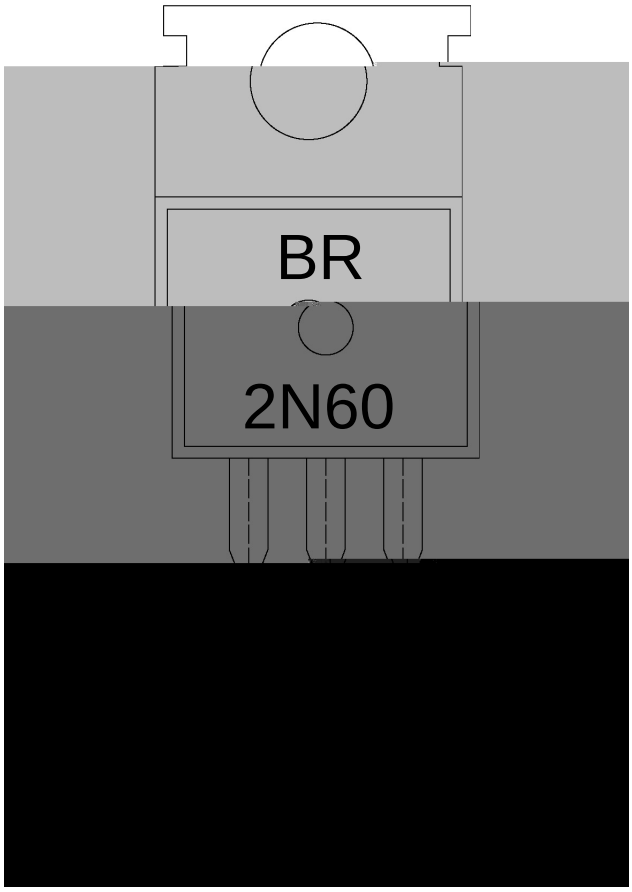
/ Electrical Characteristics(Ta=25)

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			1.0	μA
		V_{DS}=480V	T_C=125			100	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=1.0A		4.0	5.0	Ω
Forward Transconductance	g_{FS}	V_{DS}=40V	I_D=1.0A		2.05		S
Drain-Source Diode Forward Voltage	V_{SD}	V_{GS}=0V	I_S=2.0A			1.4	V
Input Capacitance	C_{iss}	V_{DS}=25V f=1.0MHz	V_{GS}=0V		320	420	pF
Output Capacitance	C_{oss}				35	46	pF
Reverse Transfer Capacitance	C_{rss}				4.5	6.0	pF
Turn-On Delay Time	$t_{d(on)}$	V_{DD}=300V R_G=25Ω	I_D=2.0A		8.0	30	ns
Turn-On Rise Time	t_r				23	60	ns
Turn-Off Delay Time	$t_{d(off)}$				25	60	ns
Turn-Off Fall Time	t_f				28	70	ns

/ Package Dimensions



/ Marking Instructions



BR

2N60

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Note:

BR:	Company Code
2N60:	Product Type.
****:	Lot No. Code, code change with Lot No.

( ) / Temperature Profile for Dip Soldering(Pb-Free)



					Note:
1	25	150	60	90sec;	1.Preheating:25~150 , Time:60~90sec.
2	255±5			5±0.5sec;	2.Peak Temp.:255±5 , Duration:5±0.5sec.
3		2	10	/sec.	3. Cooling Speed: 2~10 /sec.

/ Resistance to Soldering Heat Test Conditions

270±5	10±1 sec.	Temp.:270±5	Time:10±1 sec

/ Packaging SPEC.