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

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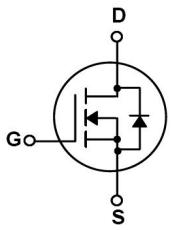
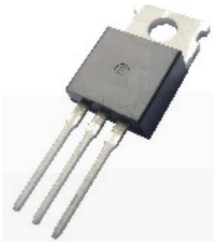
Low gate charge, low crss, fast switching.

DC/DC

These devices are well suited for high efficiency switching DC/DC converters .



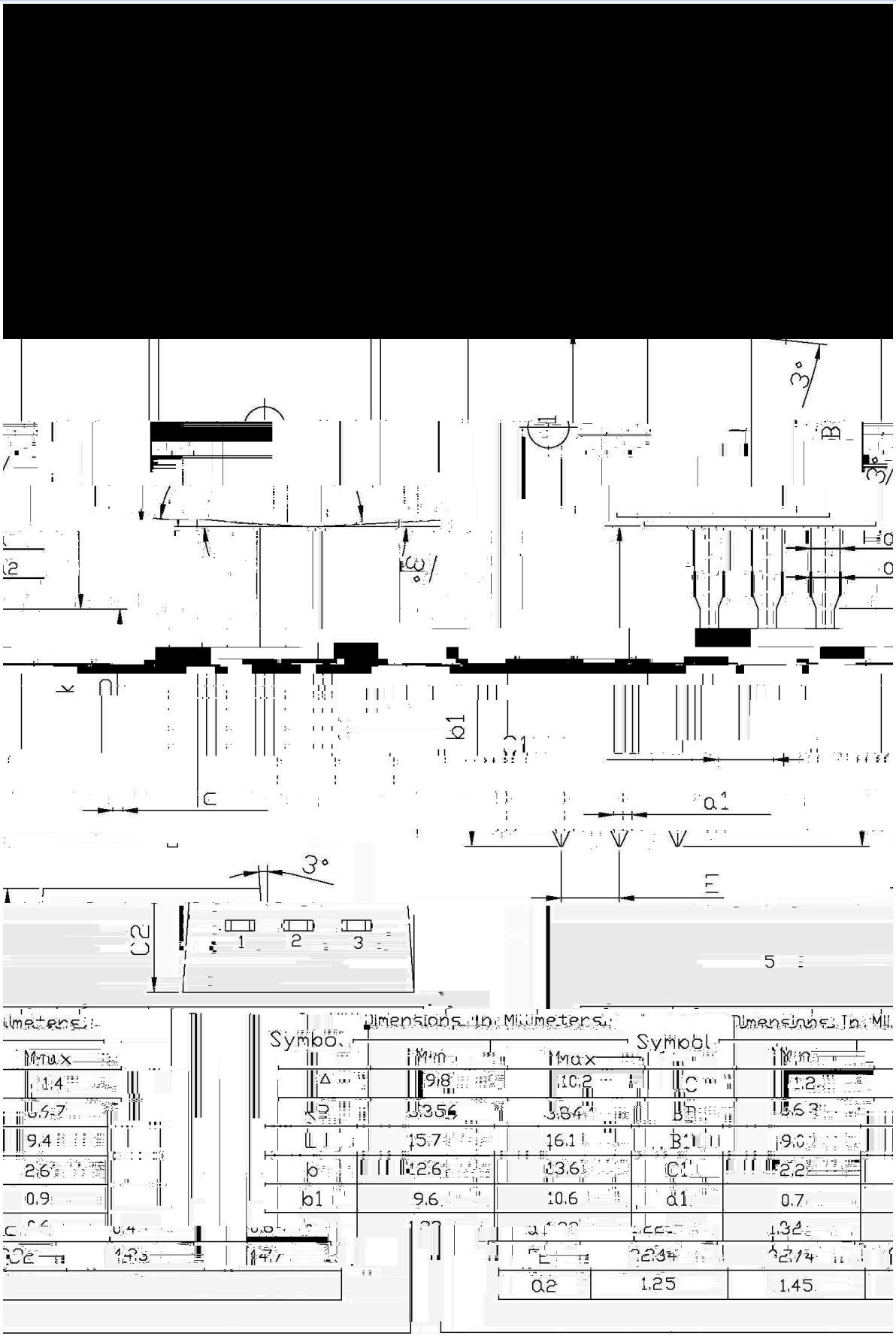


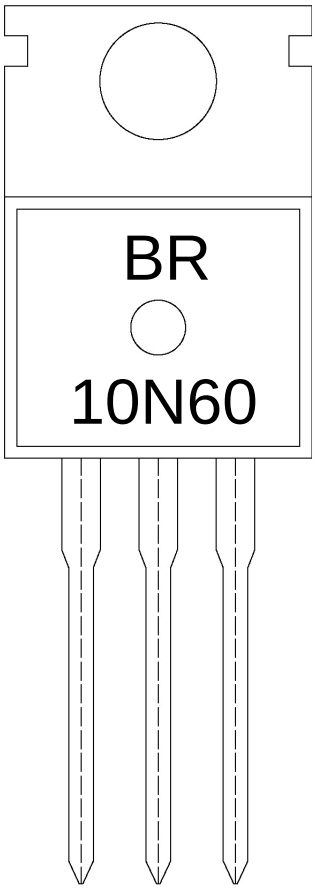
PIN1 G PIN 2 D PIN 3 S

See Marking Instructions.

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DSS}	600	V
Drain Current	I_D(Tc=25)	9.5	A
Drain Current	I_D(Tc=100)	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	$R_{\theta JC}$	0.8	/W
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	62.5	/W
Power Dissipation	P_D(Tc=25)	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=250μA	600			V
Zero Gate Voltage Drain Current	I_{DSS}	V_{DS}=600V	V_{GS}=0V			1	μA
		V_{DS}=480V	T_C=125			100	μA
Gate-Body Leakage Current Forward	I_{GSS}	V_{GS}=±20V	V_{DS}=0V			±100	nA
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=4.75A		0.6	0.73	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
Total Gate Charge	Q_g	I_D=10A V_{GS}=10V	V_{DS}=480V		45		nC
Gate-to-Source Charge	Q_{gs}				7.5		nC
Gate-to-Drain Charge	Q_{gd}				18.5		nC
Input Capacitance	C_{iss}	V_{DS}=25V f=1.0MHz	V_{GS}=0V		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 R_G=25Ω	I_D=9.5A		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


3°
B
b1
c
a1
3°
c2
1
2
3
5
Dimensions In Millimeters
Symbol
Min
Max
Symbol
Min
A
9.8
10.2
C
1.2
D
3.56
3.84
B
6.3
L
15.7
16.1
B1
9.0
b
12.6
13.6
C1
2.2
b1
9.6
10.6
a1
0.7
e
2.54
a2
1.25
1.45



BR

10N60

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Note:

BR:	Company Code
10N60:	Product Type Code.
****:	Lot No. Code, code change with Lot No.

	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.

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

/ BULK

Package Type	Units					Dimension		(unit mm^3)

/ TUBE

Package Type	Units					Dimension		(unit mm^3)