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

Low On-Resistance, High Current, High Speed switching, fast switching.

LED DC/DC DC/AC

/ Absolute Maximum Ratings(Ta=25)

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DS}	-30	V
Drain Current	I_D(Tc=25)	-40	A
Drain Current	I_D(Tc=100)	-20	A
Pulsed Drain Current	I_{DM}	-120	A
Gate-Source Voltage	V_{GS}	±25	V
Avalanche Current	I_{AS}	62	A
Total Power Dissipation	P_D(Tc=25)	80	W
Junction Temperature Range	T_j	-55 150	
Storage Temperature Range	T_{stg}	-55 150	
Thermal Resistance Junction-Ambient	R_{dJA}	65	/W
Thermal Resistance Junction-Case	R_{dJC}	3.72	/W

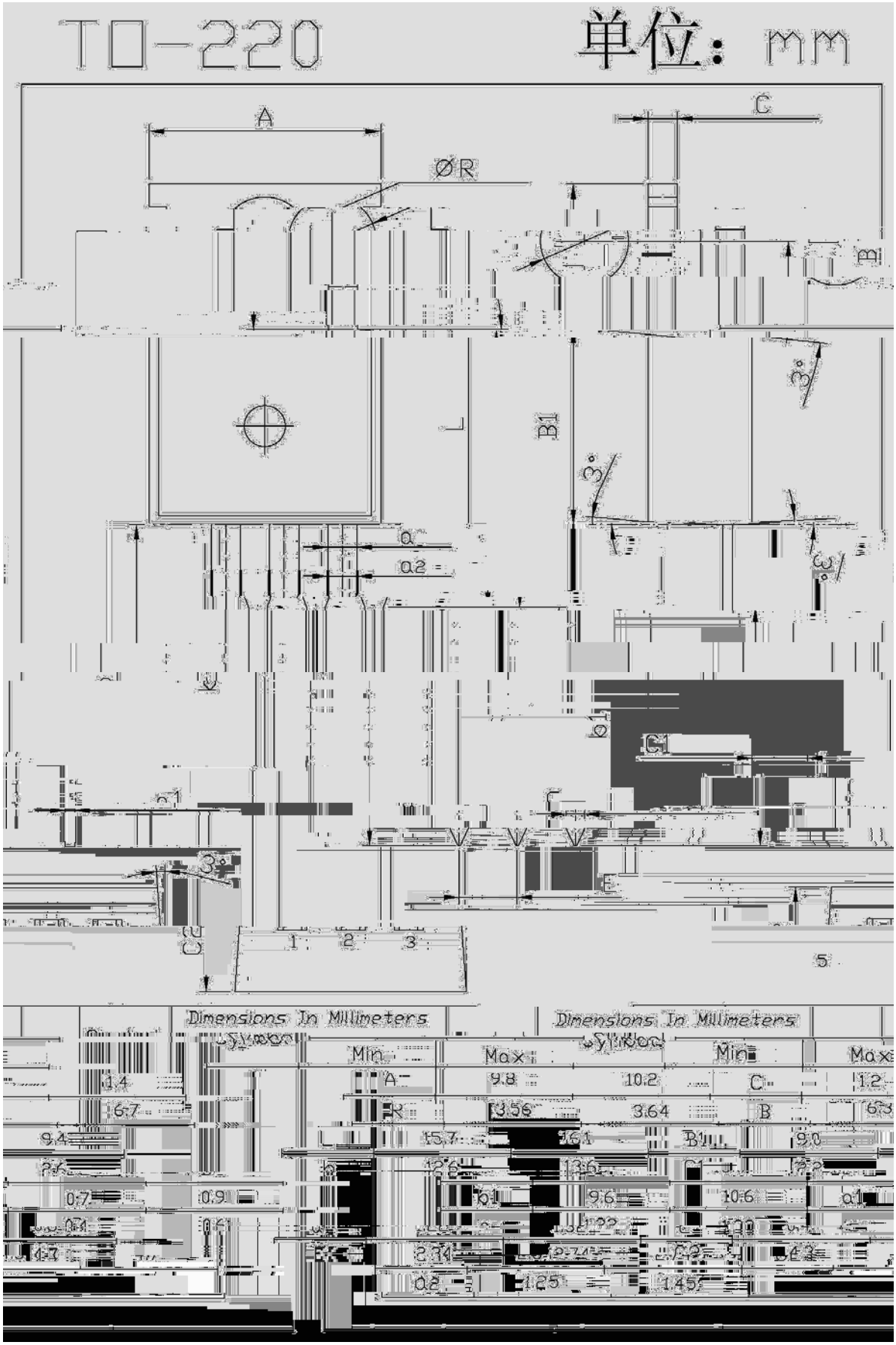
/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Zero Gate Voltage Drain Current	BV_{DSS}	V_{GS}=0V I_D=-250εA	-30			V
BVDSS Temperature Coefficient	BV_{DSS} / T_J	I_D=-1mA T_a=25		-0.01		V/
Static Drain-Source On-Resistance	$R_{DS(ON)}$	V_{GS}=-10V I_D=-24A			14	mq
Zero Gate Voltage Drain Current	I_{DSS}	V_{DS}=-30V V_{GS}=0V			-1.0	εA
		V_{DS}=-24V T_C=150			-25	
Gate-Body Leakage Current Forward	I_{GSS}	V_{GS}=±25V V_{DS}=0V			±100	nA
Gate Threshold Voltage	$V_{GS(th)}$	V_{DS}=V_{GS} I_D=-250εA	-1		-3	V
Forward Transconductance	g_{fs}	V_{DS}=-10V I_D=-24V		35		S
Total Gate Charge	Q_g	V_{DS}=-24A I_D=-24V V_{GS}=-4.5V		30	55	nC
Gate-Source Charge	Q_{gs}			6		
Gate-Drain Charge	Q_{gd}			25		
Input Capacitance	C_{iss}	V_{DS}=-25V V_{GS}=0V f=1.0MHz		2200	3395	pF
Output Capacitance	C_{oss}			635		
Reverse Transfer Capacitance	C_{rss}			560		

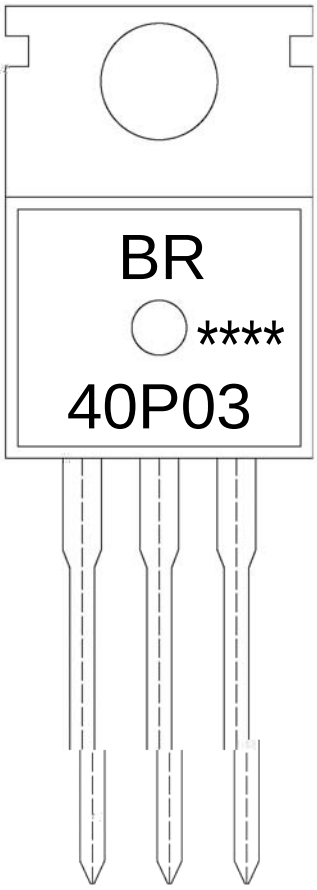
/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Turn-On Delay Time	$t_{d(on)}$	V_{DD}=-15V I_D=-24A R_G=3.3q V_{GS}=-10V R_D=0.63q		10		ns
Rise Time	t_r			65		
Turn-Off Delay Time	$t_{d(off)}$			60		
Fall Time	t_f			100		
Reverse Recovery Time2	t_{rr}	V_{GS}=0V I_S=-24A di/dt=-100A/εs		39		nC
Reverse Recovery Charge	Q_{rr}			38		
Diode Forward Voltage2	V_{SD}	V_{GS}=0V I_S=-24A T_J=25			-1.2	V

/ Package Dimensions



/ Marking Instructions



BR

40P03

****

Note:

BR:	Company Code
40P03:	Product Type.
****:	Lot No. Code, code change with Lot No.