

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	$I_D(T_c=25)$	-40	A
Drain Current	$I_D(T_c=100)$	-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	$P_D(T_c=25)$	80	W
Junction Temperature Range	T_j	-55 150	
Storage Temperature Range	T_{stg}	-55 150	
Thermal Resistance Junction-Ambient	R_{JA}	65	/W
Thermal Resistance Junction-Case	R_{JC}	3.72	/W

/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Zero Gate Voltage Drain Current	BV_{DSS}	$V_{GS}=0V$ $I_D=-250 \mu A$	-30			V
BVDSS Temperature Coefficient	$\frac{BV_{DSS}}{T_j}$	$I_D=-1mA$ $T_a=25$		-0.01		V/
Static Drain-Source On-Resistance	$R_{DS(ON)}$	$V_{GS}=-10V$ $I_D=-24A$			14	$m\Omega$
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS}=-30V$ $V_{GS}=0V$			-1.0	μA
		$V_{DS}=-24V$ $T_c=150$			-25	
Gate-Body Leakage Current Forward	I_{GSS}	$V_{GS}=\pm 25V$ $V_{DS}=0V$			± 100	nA
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS}=V_{GS}$ $I_D=-250 \mu A$	-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		

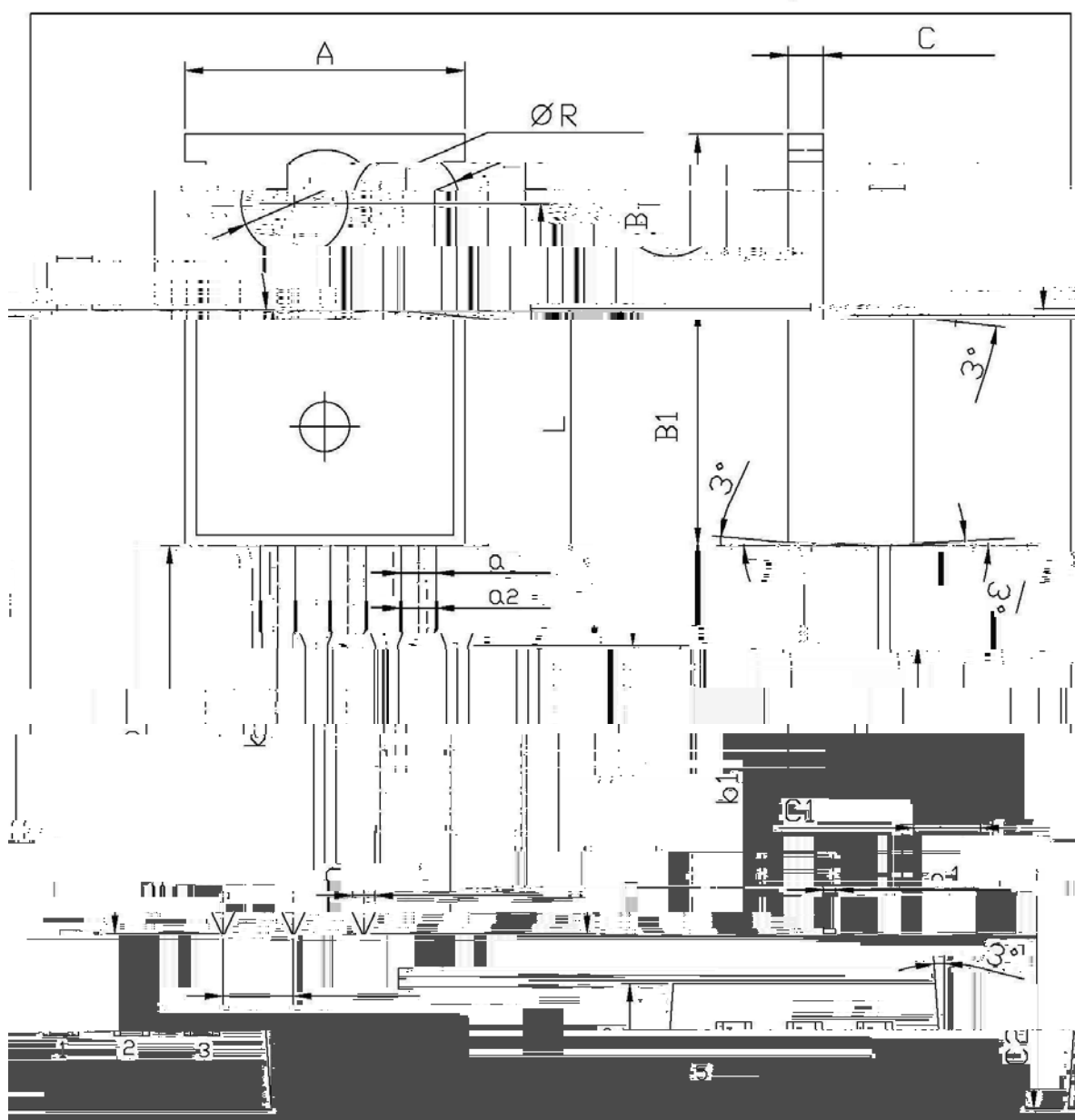
/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Turn-On Delay Time	$t_{d(on)}$	$V_{DD}=-15V$ $I_D=-24A$ $R_G=3.3\Omega$ $V_{GS}=-10V$ $R_D=0.63\Omega$		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}	$V_{GS}=0V$ $I_S=-24A$ $di/dt=-100A/\mu s$		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

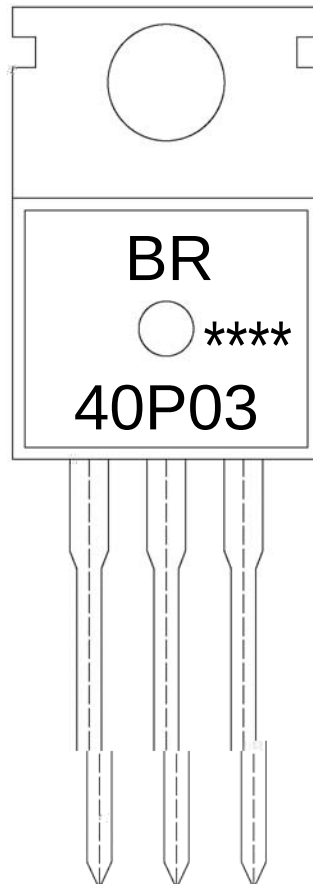
T0-220

单位: 



Dimensions In Millimeters				Dimensions In Millimeters			
Min		Max		Min		Max	
1.2	1.4	9.8	10.2				
6.3	6.7	3.56	3.64				
9.0	9.4	15.75	16.1				
2.2	2.6	12.6	13.6				
0.1	0.7	0.1	9.6				
0.3	0.4	0.3	0.3				
4.3	4.7	2.34	2.31				
		0.2	0.25				
			1.45				

/ Marking Instructions



BR

40P03

Note:

BR: Company Code

40P03: Product Type.

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

