

BRCS20P03IP

Rev.A Sep.-2018

TO-251 P MOS P-CHANNEL MOSFET in a TO-251 Plastic Package.

$R_{DS(on)}$ C_{rss}

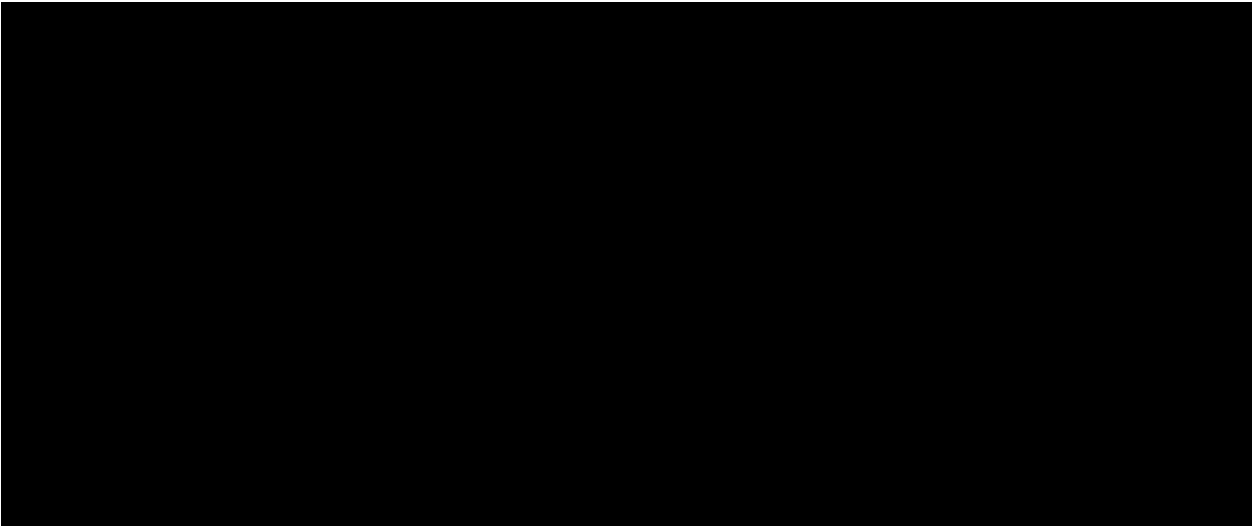
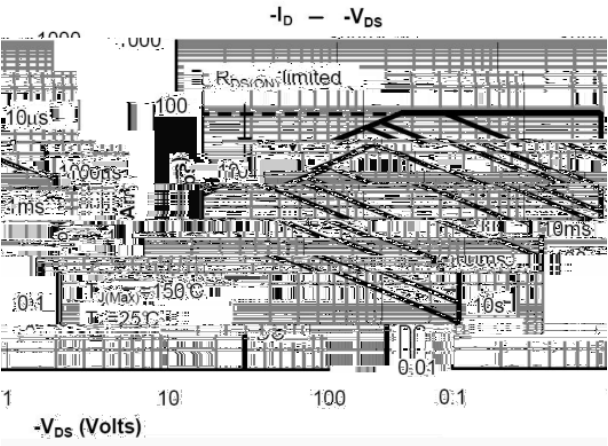
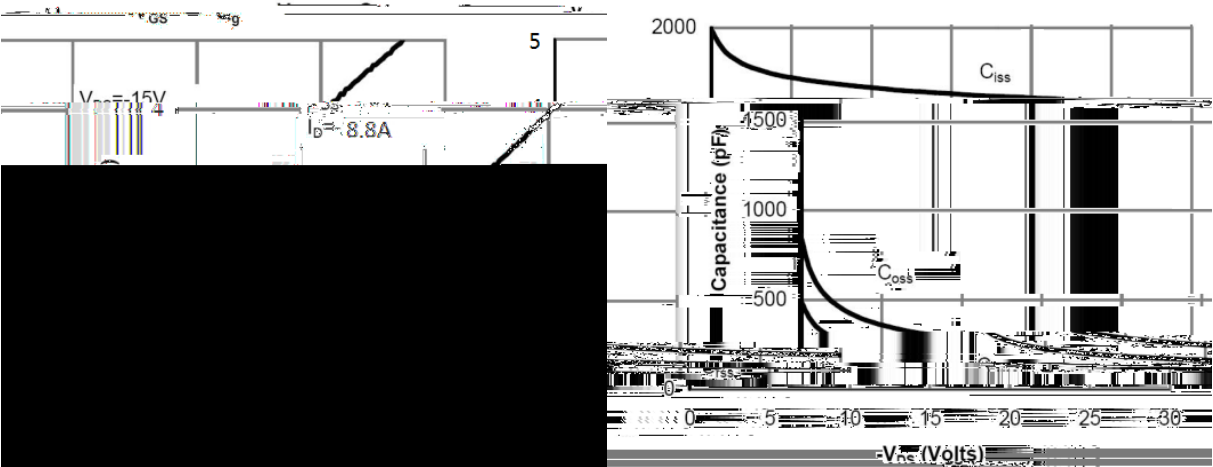
Low $R_{DS(on)}$



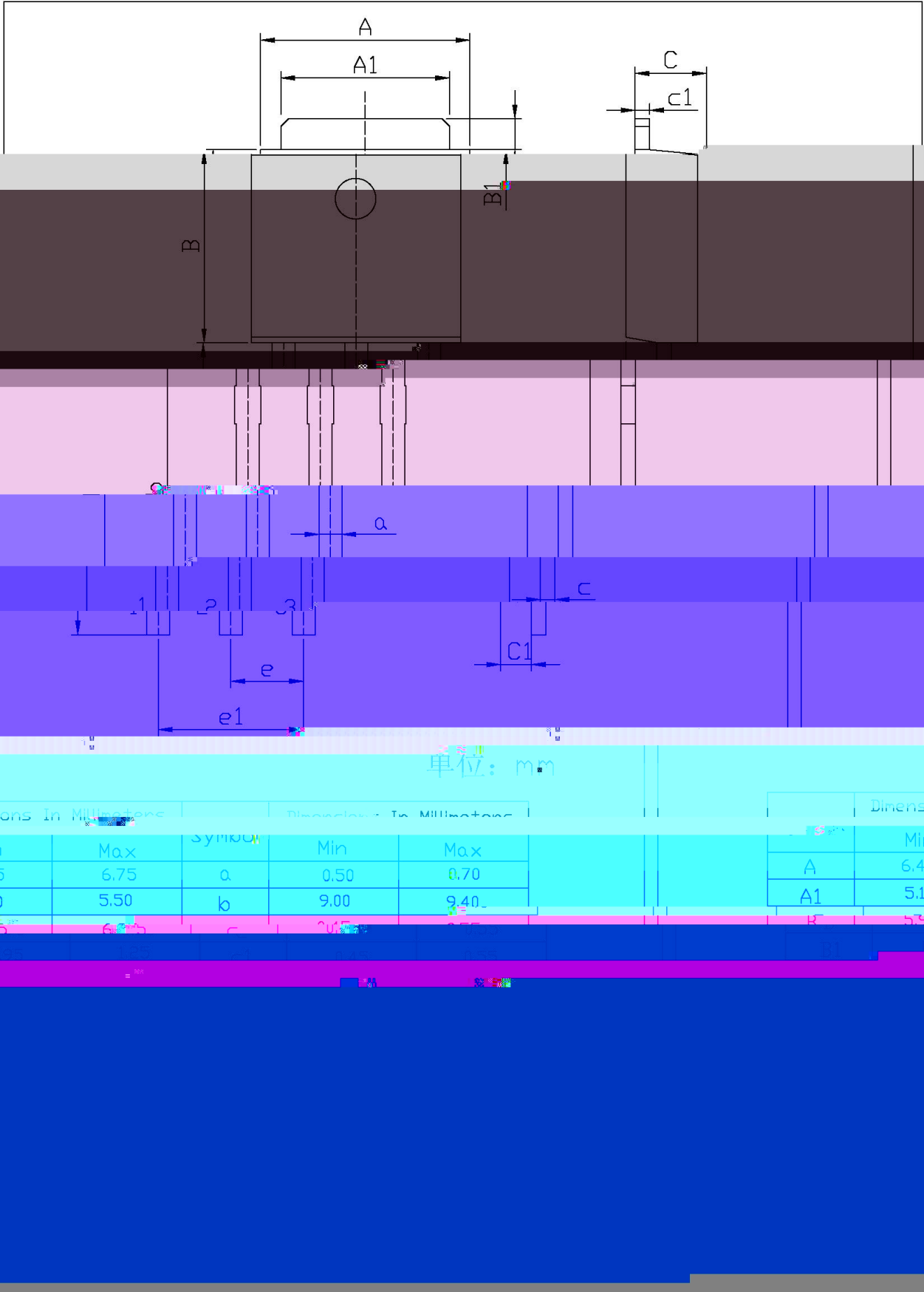
Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DS}	-30	V
Drain Current	$I_D(T_c=25^\circ\text{C})$	-20	A
Drain Current - Pulsed	I_{DM}	-50	A
Gate-Source Voltage	V_{GS}	± 20	V
Single Pulsed Avalanche Energy	E_{AS}	50	mJ
Power Dissipation	$P_D(T_c=25^\circ\text{C})$	30	W
Junction Temperature Range	T_j	150	
Storage Temperature Range	T_{stg}	-55 ~ 150	

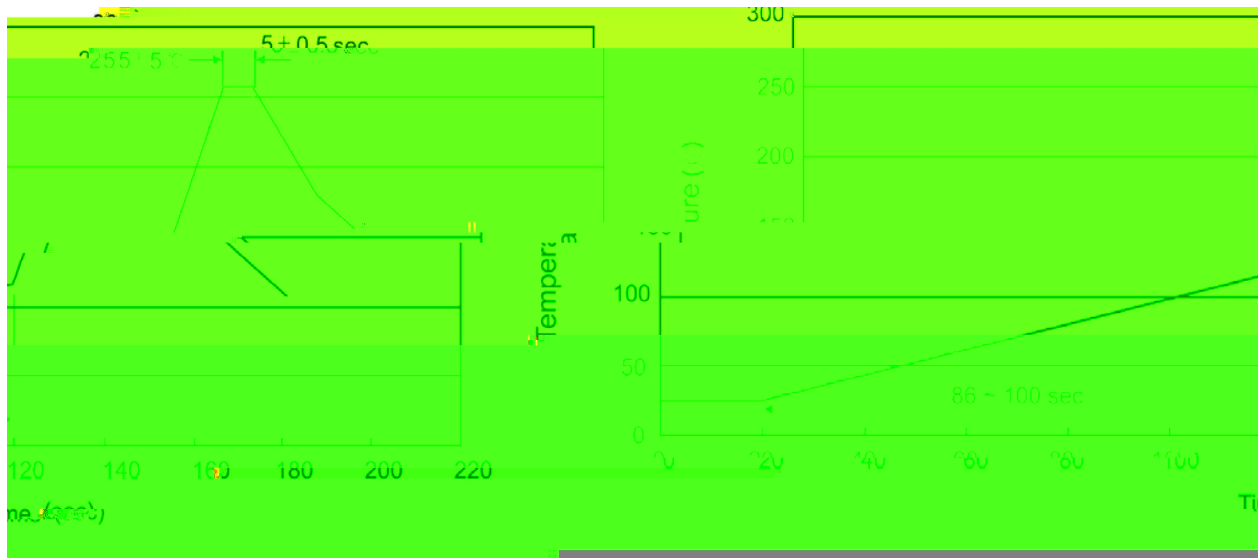
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	BV_{DSS}	$V_{GS}=0V$ $I_D=-250\mu A$	-30			V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS}=-30V$ $V_{GS}=0V$			1.0	μA
Gate-Body Leakage Current Forward	I_{GSS}	$V_{GS}=\pm 20V$ $V_{DS}=0V$			± 0.1	μA
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS}=V_{GS}$ $I_D=-250\mu A$	-1		-2.5	V
Static Drain-Source On-Resistance	$R_{DS(on)1}$	$V_{GS}=-10V$ $I_D=-8.8A$		18	23	$m\Omega$
	$R_{DS(on)2}$	$V_{GS}=-4.5V$ $I_D=-6.7A$		27	35	$m\Omega$
Drain-Source Diode Forward Voltage	V_{SD}	$V_{GS}=0V$ $I_S=-2.1A$		-0.73	-1.2	V
Input Capacitance	C_{iss}	$V_{DS}=-15V$ $V_{GS}=0V$ $f=1.0MHz$		1604		pF
Output Capacitance	C_{oss}			408		
Reverse Transfer Capacitance	C_{rss}			202		
Total Gate Charge	Q_g	$V_{DS}=-15V$ $V_{GS}=-5V$ $I_D=-8.8A$		17ref386.yR337	9.47998	

/ Electrical Characteristic Curve



/ Package Dimensions



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

Note:

- 1 25 150 60 90sec;
- 2 255±5 5±0.5sec;
- 3 2 10 /sec.

- 1.Preheating:25~150 , Time:60~90sec.
- 2.Peak Temp.:255±5 , Duration:5±0.5sec.
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.
/ REEL

Package Type	Units					Dimension (unit mm ³)		
	Units/Reel	Reels/Inner Box	Units/Inner Box	Inner Boxes/Outer Box	Units/Outer Box	Reel	Inner Box	Outer Box
TO-251	1,000	10	10,000	5	50,000	135×190	237×172×102	560×245×195

/ TUBE

Package Type	Units					Dimension (unit mm ³)		
	Units/Tube	Tubes/Inner Box	Units/Inner Box	Inner Boxes/Outer Box	Units/Outer Box	Tube	Inner Box	Outer Box
TO-251/252	75	48	3,600	5	18,000	526×20.5×5.25	555×164×50	575×290×180

/ Notices