

BRCS350P06DP

Rev.A Nov.-2024



DATA SHEET

TO-252 P

P-CHANNEL MOSFET in a TO-252 Plastic Package.

$V_{DS} (V) = -60V$ $I_D = -30A (V_{GS} = \pm 20V)$

$R_{DS(ON)}$

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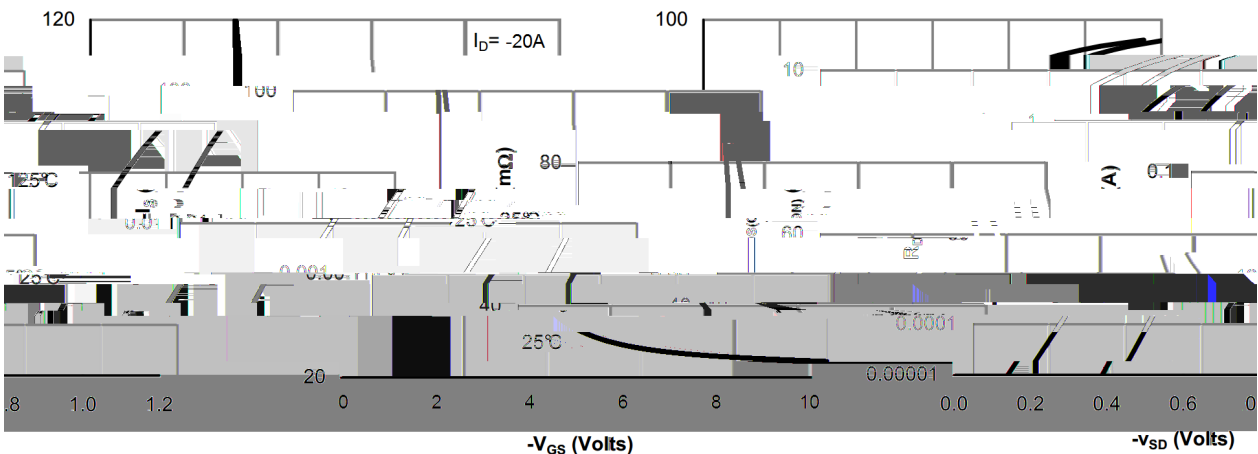
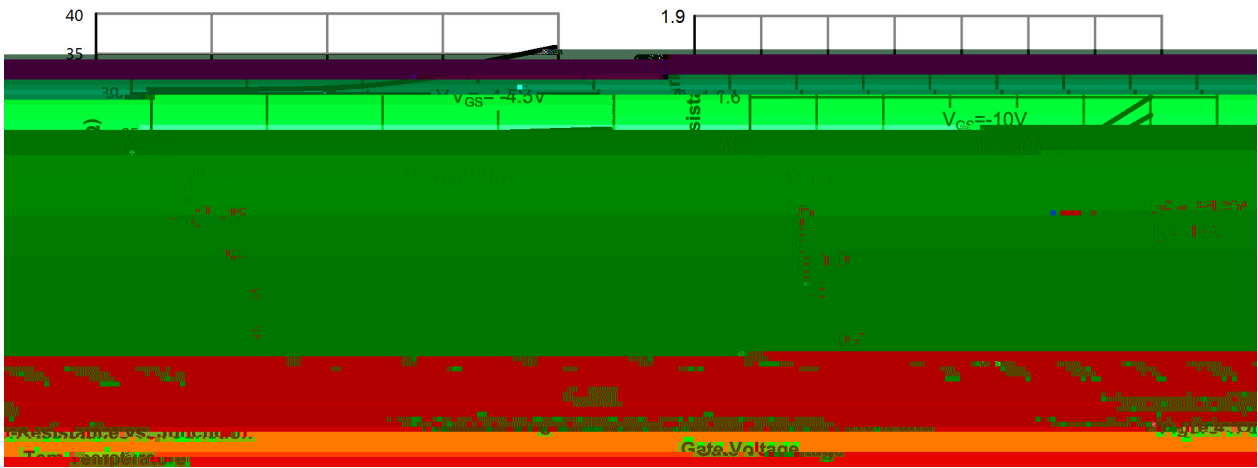
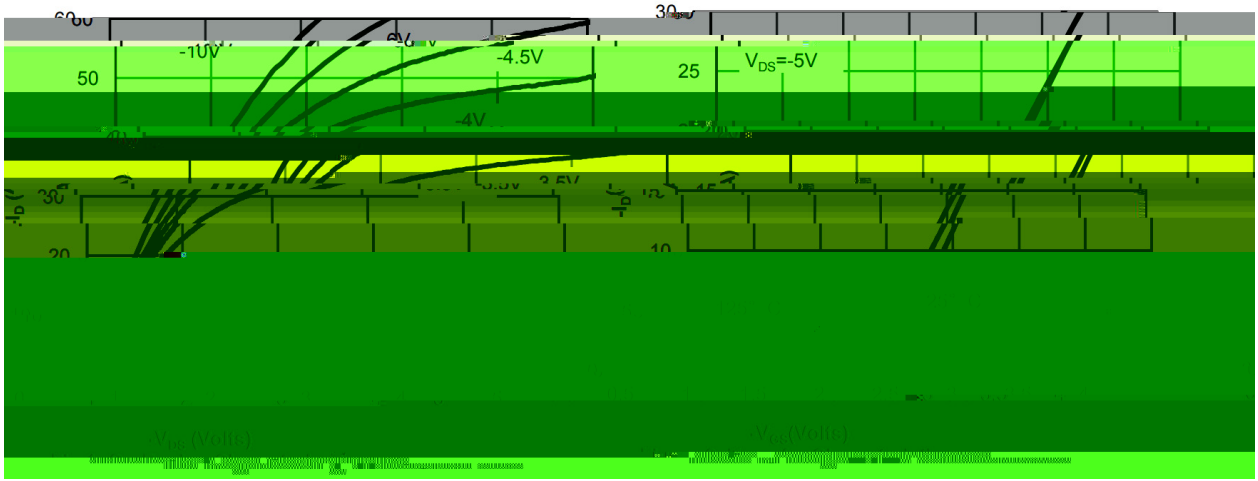
DATA SHEET

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DSS}	-60	V
Gate-Source Voltage	V_{GSS}	± 20	V
Continuous Drain Current	$I_D (T_c=25^\circ C)$	-30	A
Pulsed Drain Current	I_{DM}	-94.5	A
Avalanche Current	I_{AS}	-17.5	A
Avalanche energy L=0.5mH	E_{AS}	320	mJ
Power Dissipation for Single Operation	$P_D (T_c=25^\circ C)$	50	W
Maximum Junction Temperature	T_j	150	
Storage Temperature Range	T_{stg}	-55 150	
Thermal Resistance-Junction to Ambient	R_{JA}	50	/W
Thermal Resistance- Junction-to-Case	R_{JC}	2.5	/W

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	BV_{DSS}	$I_D=-250\mu A$ $V_{GS}=0V$	-60			V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS}=-60V$ $V_{GS}=0V$			-1.0	
Gate-Body leakage current	I_{GSS}	$V_{DS}=0V$ $V_{GS}=\pm 20V$			± 100	nA
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS}=V_{GS}$ $I_D=-250\mu A$	-1.0	-1.6	-2.5	V
Static Drain-Source On-Resistance	$R_{DS(ON)}$	$V_{GS}=-10V$ $I_D=-20A$		26	35	m
		$V_{GS}=-4.5V$ $I_D=-10A$		31	50	
Diode Forward Voltage	V_{SD}	$I_S=-1A$ $V_{GS}=0V$			-1.0	V
Gate Resistance	R_g	$V_{GS}=0V$ $V_{DS}=0V$				

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/ Electrical Characteristic Curve

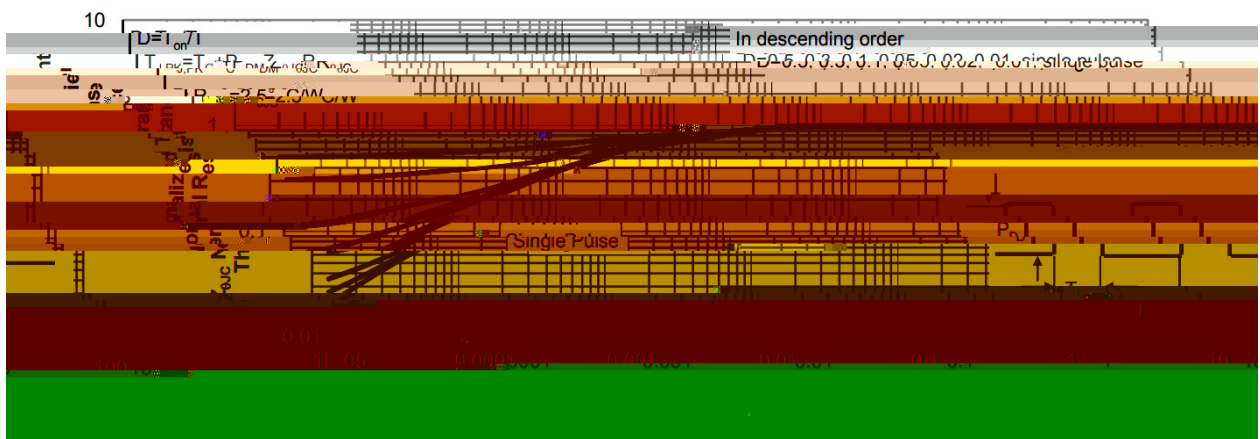
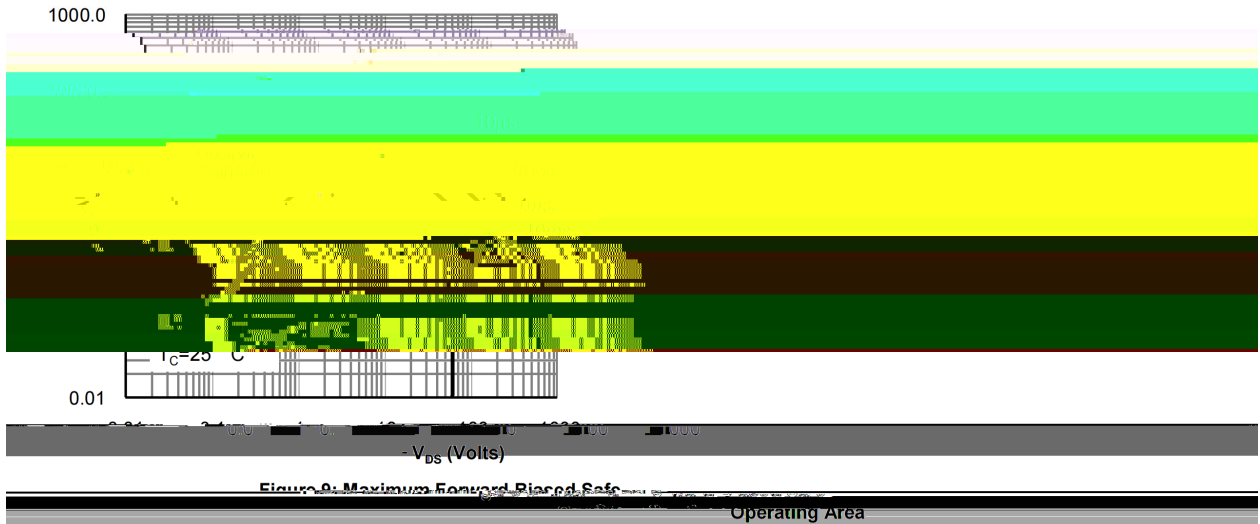
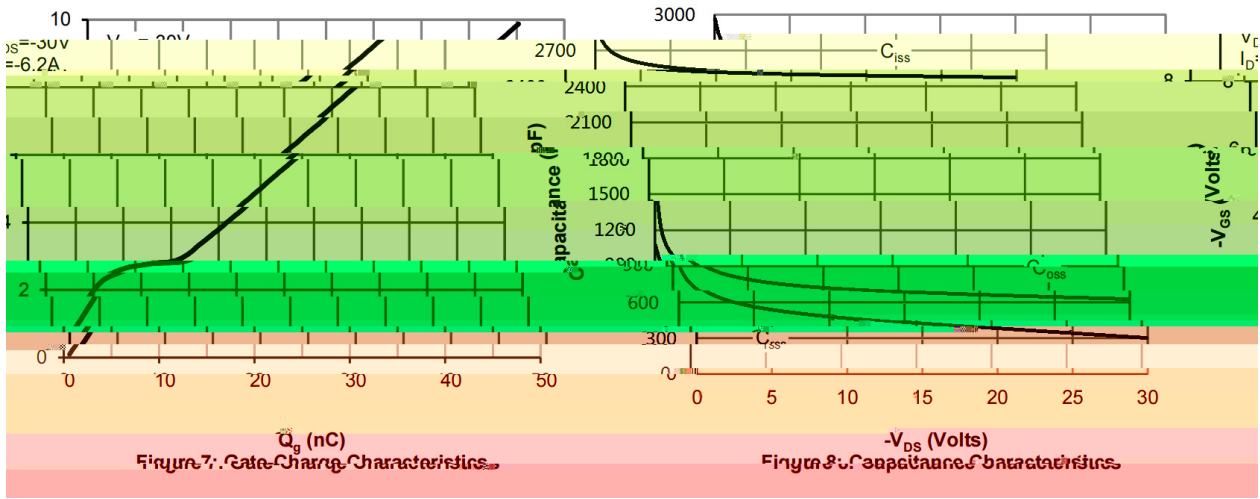


Characteristics

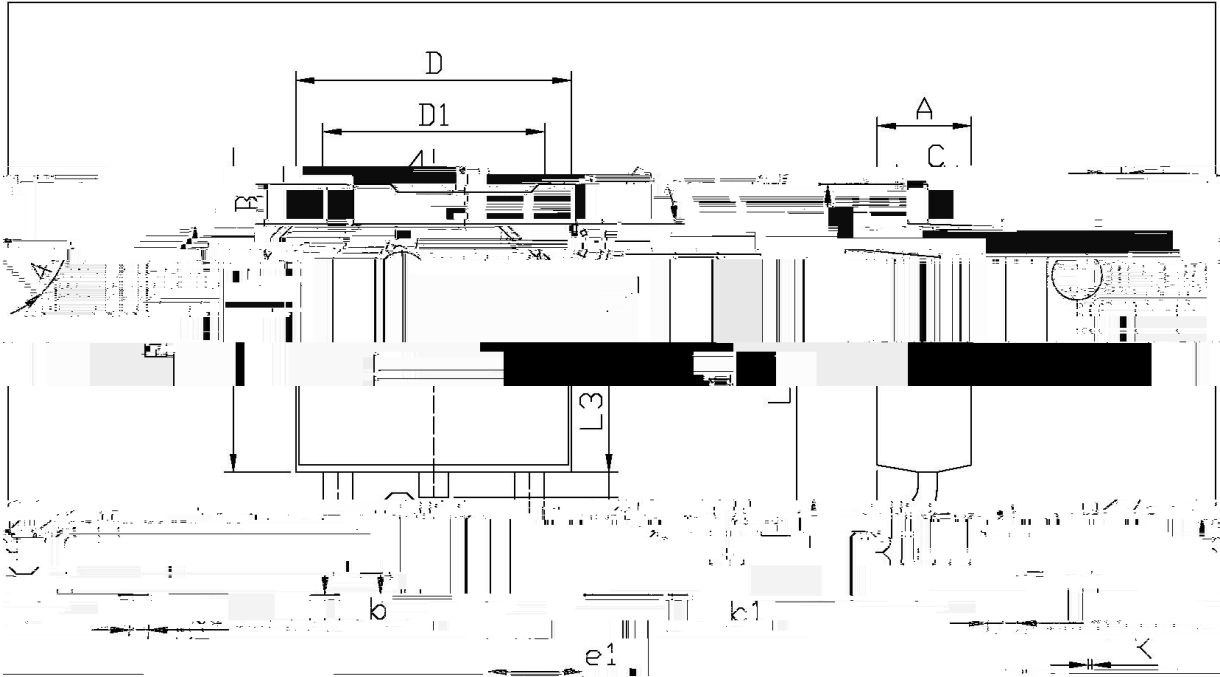
Figure 5: On-Resistance vs. Gate Source Voltage

Figure 6: Body-Diode Char

/ Electrical Characteristic Curve



/ Package Dimensions



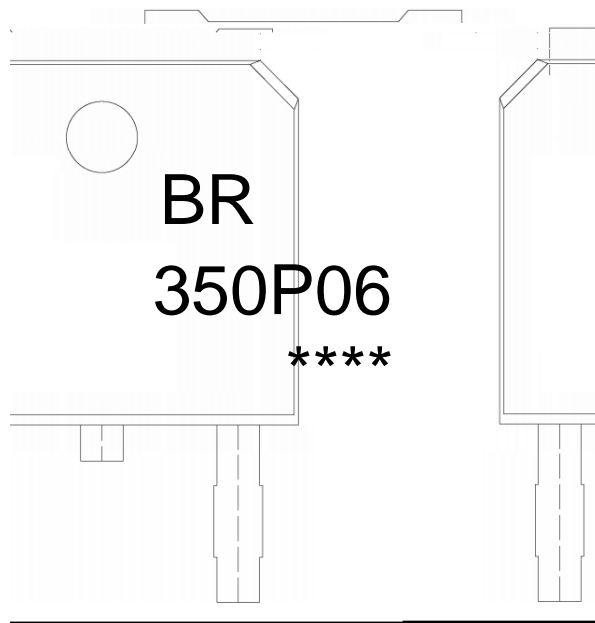
单位: mm

Dimensions [In Millimeters]		Dimensions [In Millimeters]	
Min	Max	Min	Max
0.76	1.0	0.25	0.34
0.95	1.25	e1	2.24
0.70	0.90	4.2	4.7
0.20	0.45	0.55	0.85
0.45	0.55	6.45	6.75
0.00	0.10	D1	5.10
			5.50

①

T0-25

/ Marking Instructions



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350P06

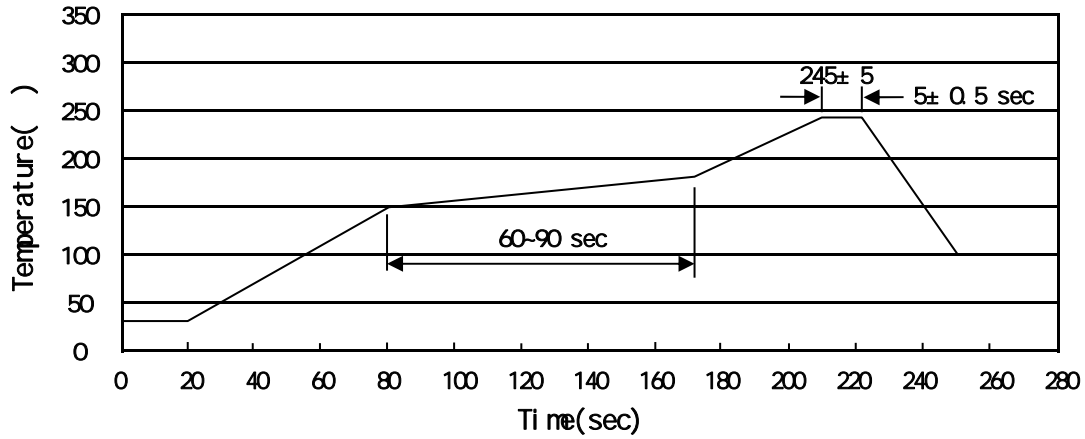
Note:

BR: Company Code

350P06: Product Type Code

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

() / Temperature Profile for IR Reflow Soldering(Pb-Free)



Note:

- | | | | | | |
|---|-------|-----|-------|----------|---|
| 1 | 150 | 180 | 60 | 90sec; | 1.Preheating:150~180 , Time:60~90sec. |
| 2 | 245±5 | | 5±0.5 | sec; | 2.Peak Temp.:245±5 , Duration:5±0.5sec. |
| 3 | | | 2 | 10 /sec. | 3. Cooling Speed: 2~10 /sec. |

/ Resistance to Soldering Heat Test Conditions

260±5 10±1 sec. Temp.:260±5 Time:10±1 sec

/ Packaging SPEC.

/ REEL

Package Type	Units					Dimension (unit mm ³)		
TO-252	2,500	2	5,000	6	30,000	13	×16	360×360×50 380×335×366

/ TUBE

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

/ Notices