

BRCS150P04DSC
Rev.A Aug.-2024

DATA SHEET

Absolute Maximum Ratings(Ta=25 ;)

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V _{DS}	-40	V
Gate-Body Leakage Voltage	V _{GS}	±20	V
Drain Current – Continuous	I _D	-10	A
Pulsed Drain Current	I _{DM}	-41	A
Power Dissipation	P _D	2.5	W
Operating and Storage Temperature Range	T _J , T _{STG}	-55 150	
Maximum Junction-to-Ambient	R _{θJA}	50	/W

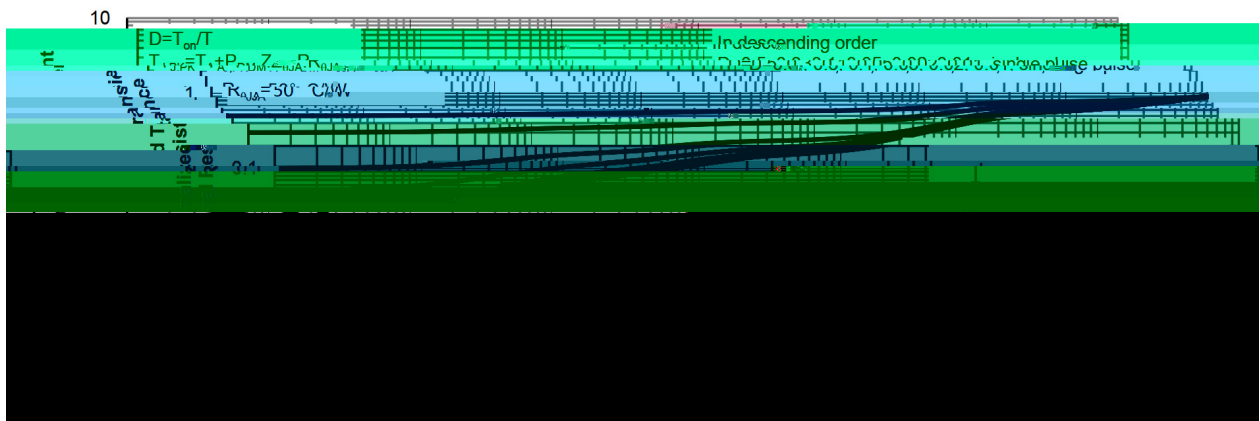
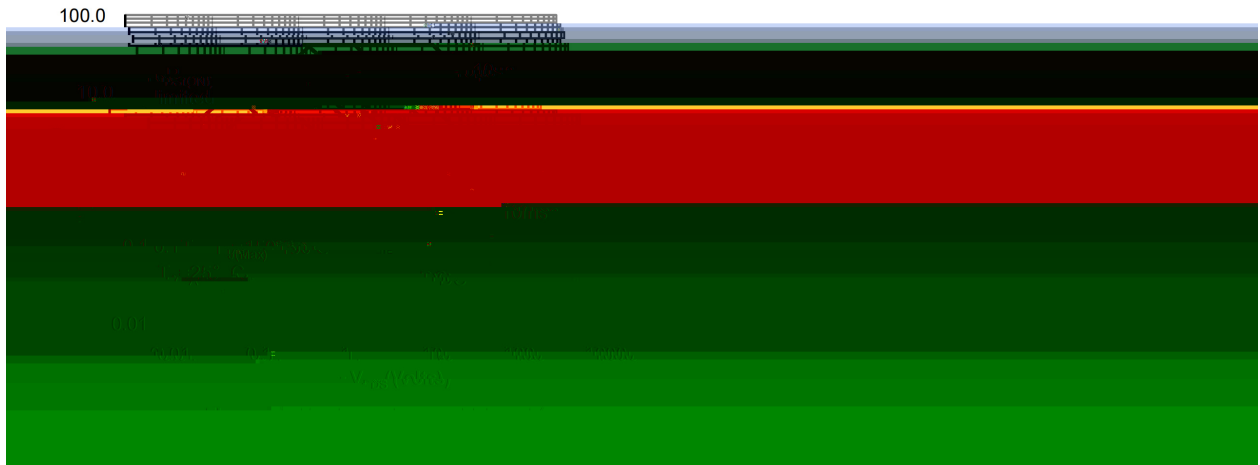
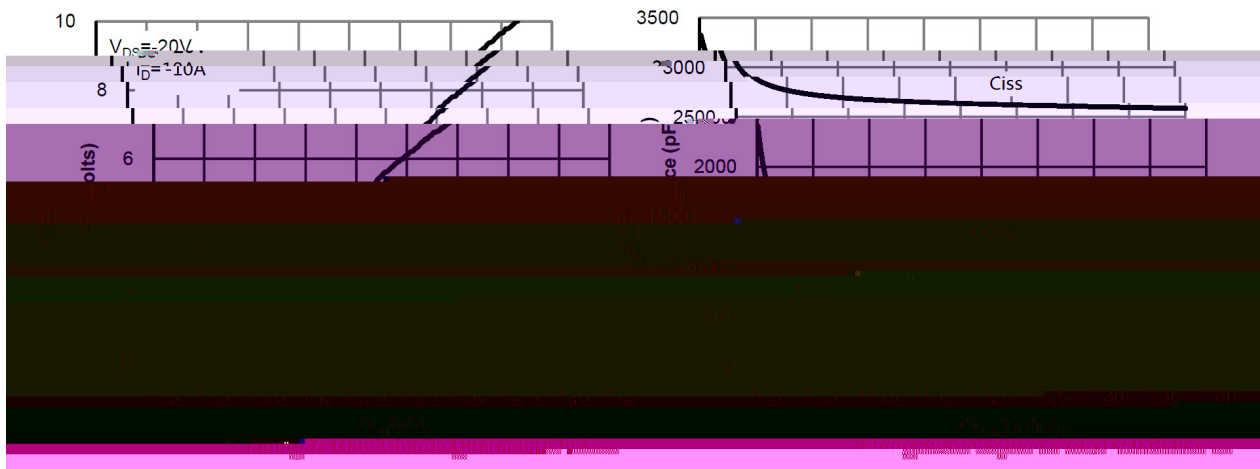
Electrical Characteristics(Ta=25 ;)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	BV _{DSS}	V _{GS} =0V I _D =-250 A	-40	-46.5		V
Zero Gate Voltage Drain Current	I _{DSS}	V _{DS} =-40V V _{GS} =0V			1.0	A
Gate-Body Leakage Current Forward	I _{GSS}	V _{GS} =±20V V _{DS} =0V			±0.1	A
Gate Threshold Voltage	V _{GS(th)}	V _{DS} =V _{GS} I _D =-250 A	-1.0	-1.7	-2.5	V
Static Drain-Source On-Resistance	R _{DS(on)}	V _{GS} =-10V I _D =-10A		13	15	m
		V _{GS} =-4.5V I _D =-7A		17	30	
Drain-Source Diode Forward Voltage	V _{SD}	V _{GS} =0V I _S =-1A			-1.2	V
Gate resistance	R _g	V _{GS} =0V V _{DS} =0V, f=1MHz		6.5		
Input Capacitance	C _{iss}	V _{DS} =-25V V _{GS} =0V f=1.0MHz		2680		pF
Output Capacitance	C _{oss}			1150		
Reverse Transfer Capacitance	C _{rss}			870		
Total Gate Charge	Q _g (10V)	V _{GS} =-10V V _{DS} =-20V I _D =-10A		42		nC
Total Gate Charge	Q _g (4.5V)			18.6		
Gate Source Charge	Q _{gs}			7		
Gate Drain Charge	Q _{gd}			8.6		

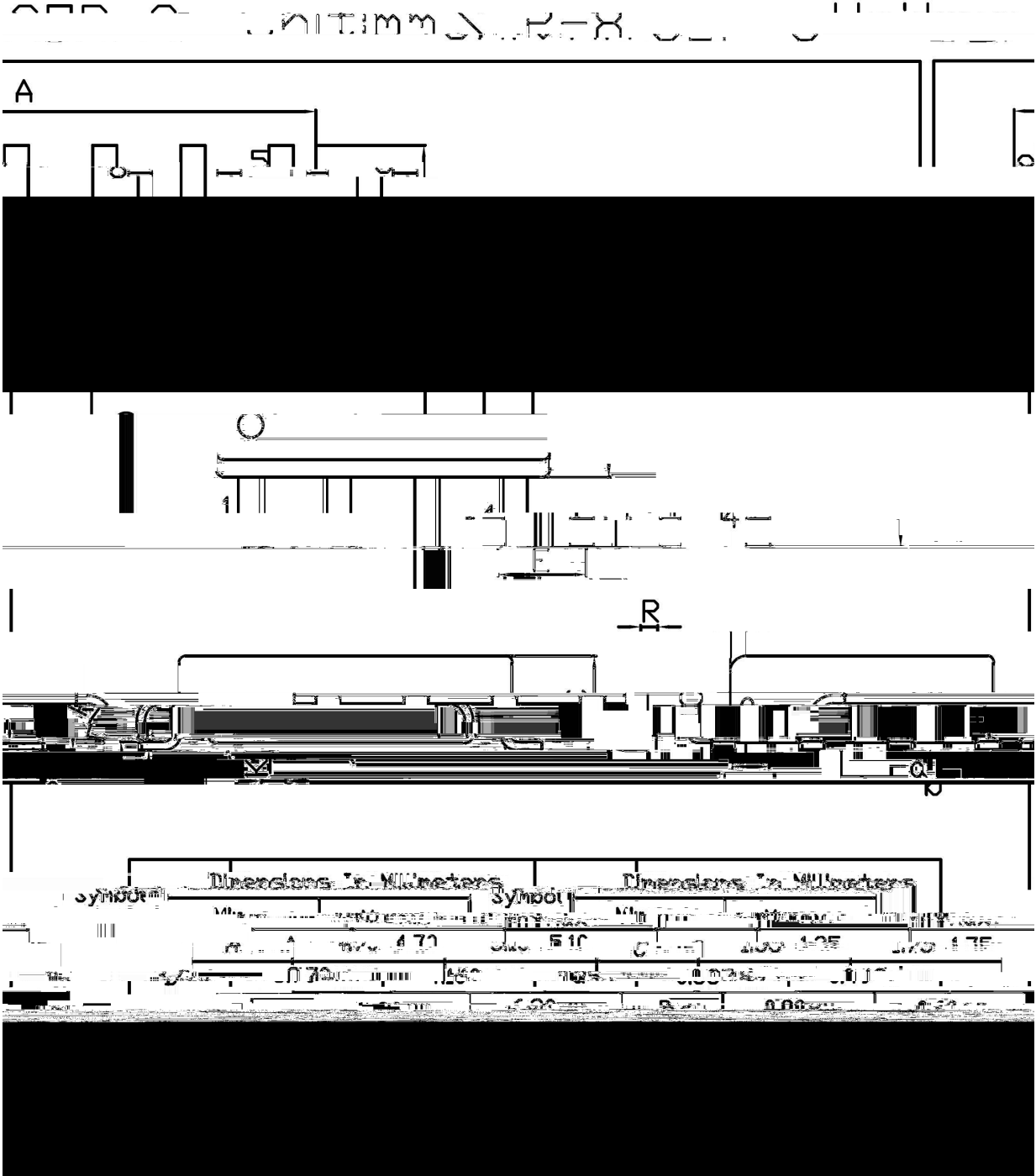
Electrical Characteristics(Ta=25 ;)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Turn-On Delay Time	$t_{d(on)}$	$V_{GS}=-10V$ $V_{DS}=-20V$ $R_L=1\Omega$ $R_{GEN}=3\Omega$		9.4		ns
Turn-On Rise Time	t_r			20		
Turn-Off Delay Time	$t_{d(off)T}$					
Turn-Off Fall Time	t_fT					

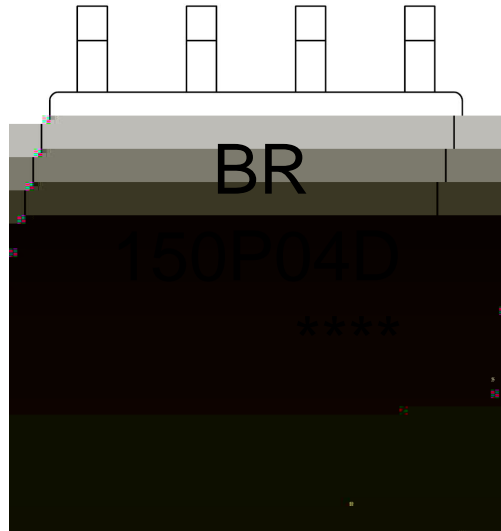
Electrical Characteristic Curve



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Note:

BR: Company Code

150P04D: Product Type Code

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

