

BRCS4354SC

Rev.C Aug.-2023



DATA SHEET

956 3.5A/4.5V MOSFET
N-Channel MOSFET in a SOP-8 Plastic Package.

$V_{DS}=30V$ $I_D=23A(V_{GS}=\pm 20V)$
 $R_{DS(ON)}@10V$ 5.5m (Typ.4.3m)
 $R_{DS(ON)}@4.5V$ 7.0m (Typ.5.5m)
—)í D }ož HF Product.

@ f Parameter	... Z Symbol	f › Rating	% y Unit
Drain-Source Voltage	V _{DS}	30	V
Gate-Source Voltage	V _{GS}	±20	V
Continuous Drain Current	T _C =25 I _D	23	A
Pulsed Drain Current ⁷	I _{DM}	120	A
Avalanche Current	I _{AS}	30	A
Avalanche energy	E _{AS}	70	mJ
Power Dissipation	T _C =25 P _D	5	W
Operating and Junction Temperature Range	T _j T _{stg}	-55 +150	
Thermal resistance, junction - ambient	R _{JA}	75	/ W
Thermal resistance, junction - case	R _{JC}	25	/ W

@ f	... Z	y j Ú ^ Test Conditions	Â 4 › Min	Á ° › Typ	Â Ý › Max	% y Unit
		V _{GS} =0V I _D =250 A	30			V
		V _{DS} =30V V _{GS} =0V			1.0	A
Gate-Body Leakage Current Forward	I _{GSS}	V _{GS} =±20V V _{DS} =0V			±100	nA
Gate Threshold Voltage	V _{GS(th)}	V _{DS} =V _{GS} I _D =250 A	1.2	1.8	2.5	V
Static Drain-Source On-Resistance	R _{DS(on)}	V _{GS} =10V I _D =20A		4.3	5.5	m
		V _{GS} =4.5V I _D =12A		5.5	7	
Forward Transconductance	g _{FS}	V _{DS} =25V I _D =10A		30		S
Diode Forward Voltage	V _{SD}	I _S =1A V _{GS} =0V		0.7	1.2	V

Electrical Characteristics

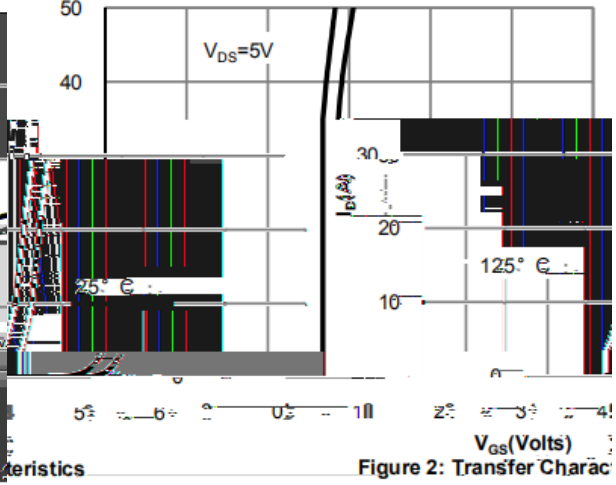
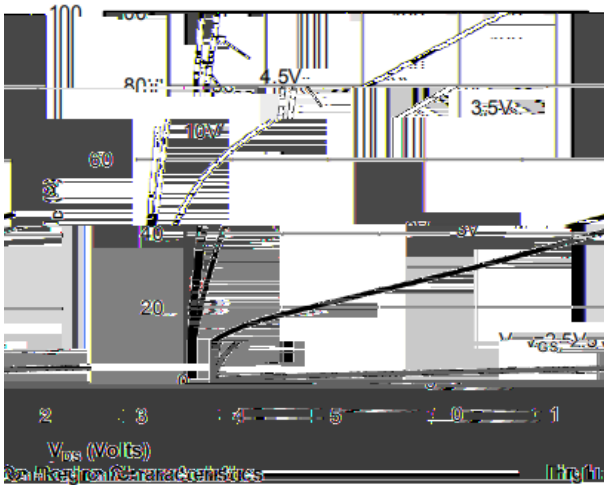


Figure 2: Transfer Characteristics

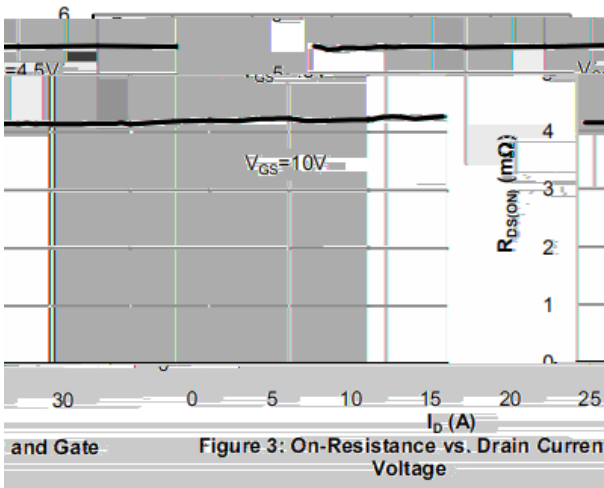


Figure 3: On-Resistance vs. Drain Current and Gate Voltage

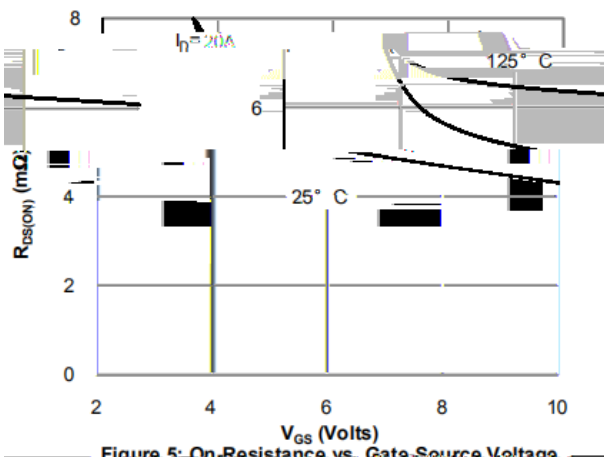
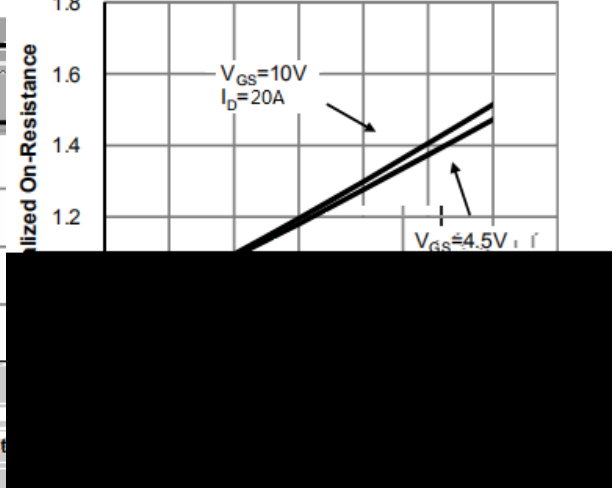


Figure 5: On-Resistance vs. Gate-Source Voltage

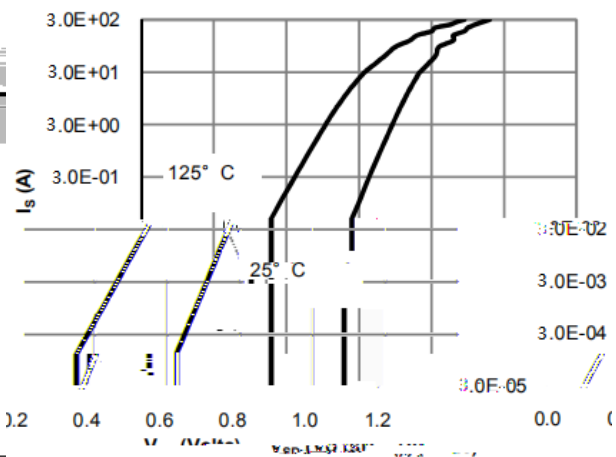
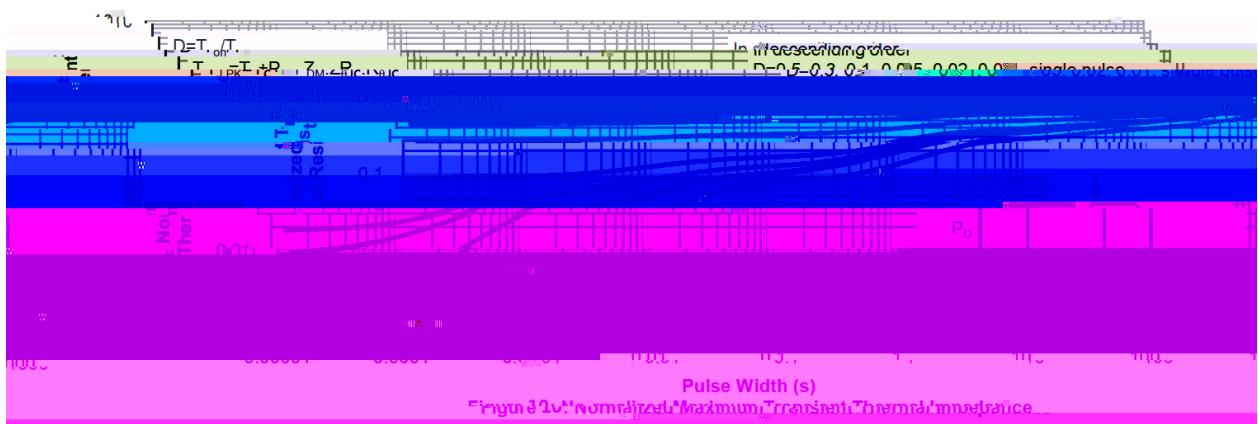
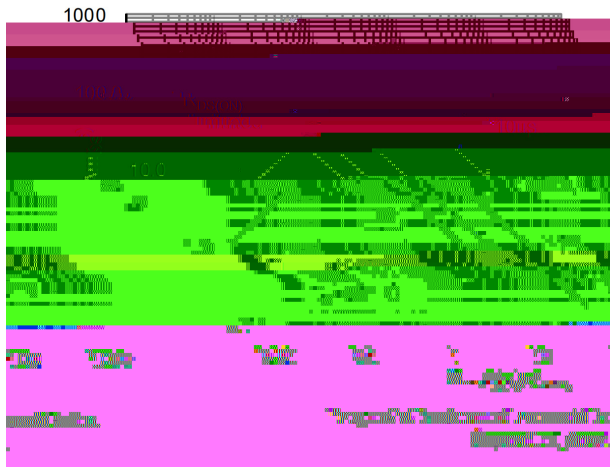
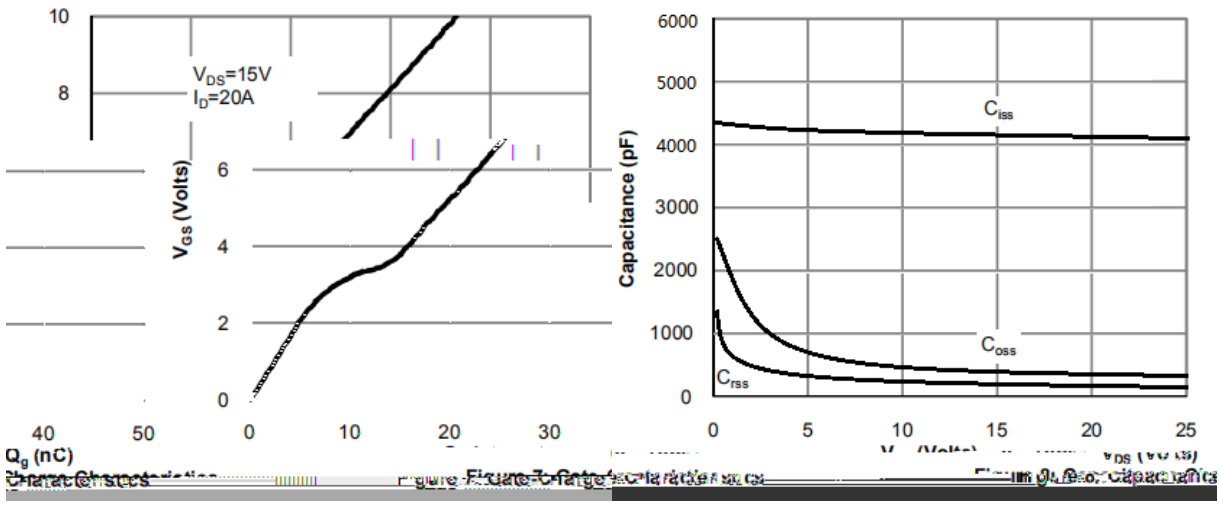
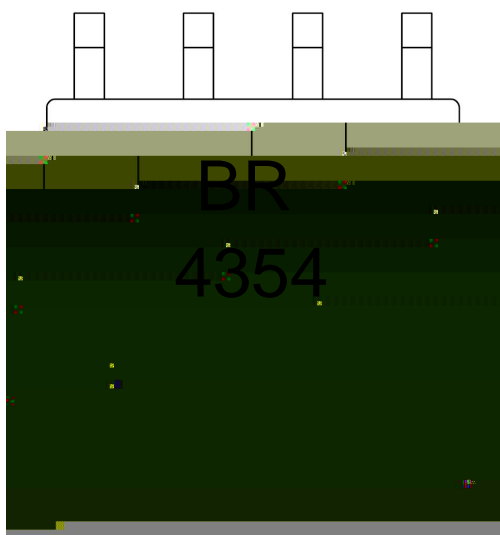


Figure 6: Body Diode Characteristics

Electrical Characteristic Curve



, M y f / Marking Instructions

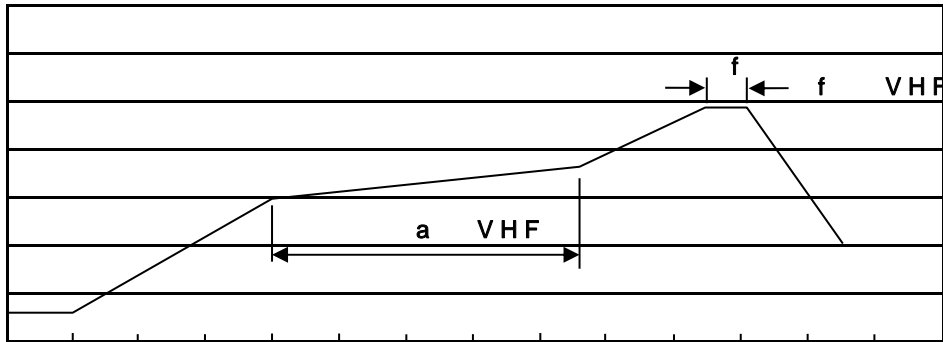


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BR y , [W A
 y ° Z W A
 y ÿ D Z W A k š ÿ D Z J

Note:
BR: Company Code.
4354 y Product Type.
****: Lot No. Code, code change with Lot No.

šWD t... •Žç (x/) / :KSVKXGZ[XK 6XULORK LUX /8 8KLRU] 9URJKXOTM 6

7HPSHUDWXUH



7LPH VHF

^açy

1o• Ä ½ “ † 150 ½180 - k ž • 60 ½90sec;

2o• Q › “ † 245 r5 - k ž • 4 Ò 5 r0.5sec;

3o•D N ò i Ò 0 , † 2 ½10 - /sec.

Note:

1.Preheating:150~180 - , Time:60~90sec.

2.Peak Temp.:245 r5 - , Duration:5 r0.5sec.

3. Cooling Speed: 2~10 - /sec.

ÂD /Cã p ~ »] / Resistance to Soldering Heat Test Conditions

“ † y 260 r5 -

ž • y 10 r1 sec.

Temp.:260±5

Time:10±1 sec

G P á / Packaging SPEC.

2 & x / REEL

Package Type 7>û ~ E	Units ;>û !H					Dimension ;>û p . (unit Åmm³)		
	Units/Reel / --	Reels/Inner Box -- /-	Units/Inner Box /-	Inner Boxes/Outer Box - /!ç	Units/Outer Box /!ç	Reel	Inner Box	Outer Boxç
SOP/ESOP-8	4,000	2	8,000	6	48,000	13 s ×12	360×360×50	380×335×366

„Đ y f / Notices