

BRCS450N15SHZC

Rev.A Aug.-2025

/ Descriptions

PDFN5 6 N

N-Channel MOSFET in a PDFN5x6 Plastic Package.

/ Features

$V_{DS}(V)=150V$ $I_D=21A$

$R_{DS(ON)}@10V$ 45m (Typ.40m)

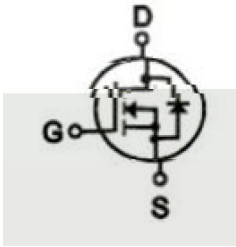
$R_{DS(ON)}@6V$ 55m (Typ.45m)

HF Product.

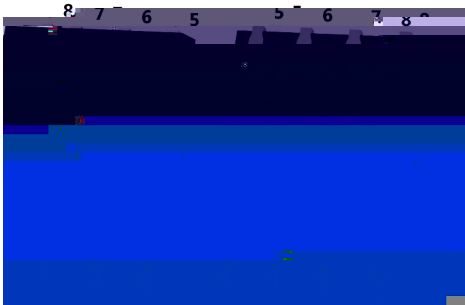
/ Applications

LCD TV appliances, High power inverter system, LCDM appliances.

/ Equivalent Circuit



/ Pinning



PIN1 2 3 S PIN4 G PIN5 6 7 8 D

/ Marking

See Marking Instructions.

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Parameter	Symbol	Min	Max	Unit
Drain-Source Voltage	V_{DS}			
Continuous Drain Current	$I_D(T_c=25^\circ\text{C})$			
	$I_D(T_c=100^\circ\text{C})$			
Pulsed Drain Current*	I_{DM}		84	
Gate-Source Voltage	V_{GS}	± 20		
Power Dissipation	$P_D(T_c=25^\circ\text{C})$	50		
Junction and Storage Temperature Range	T_j, T_{stg}	-55 to 150		
Continuous-Source Current	I_S	21		A
Maximum Junction-to-Ambient**	R_{JA}	50		/ W
Maximum Junction-to-Case**	R_{JC}	2.5		

Notes

* Pulse width 300 μs , duty cycle 2 %

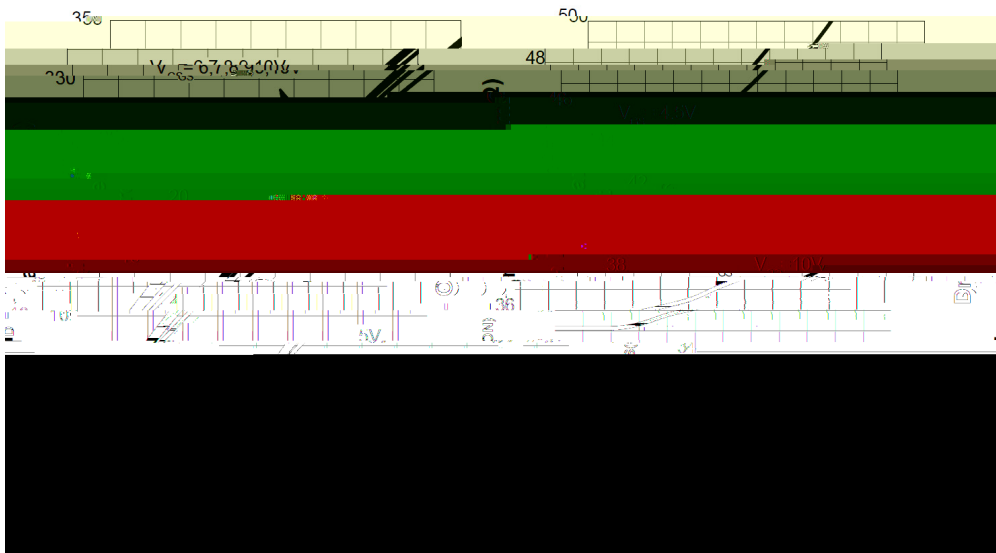
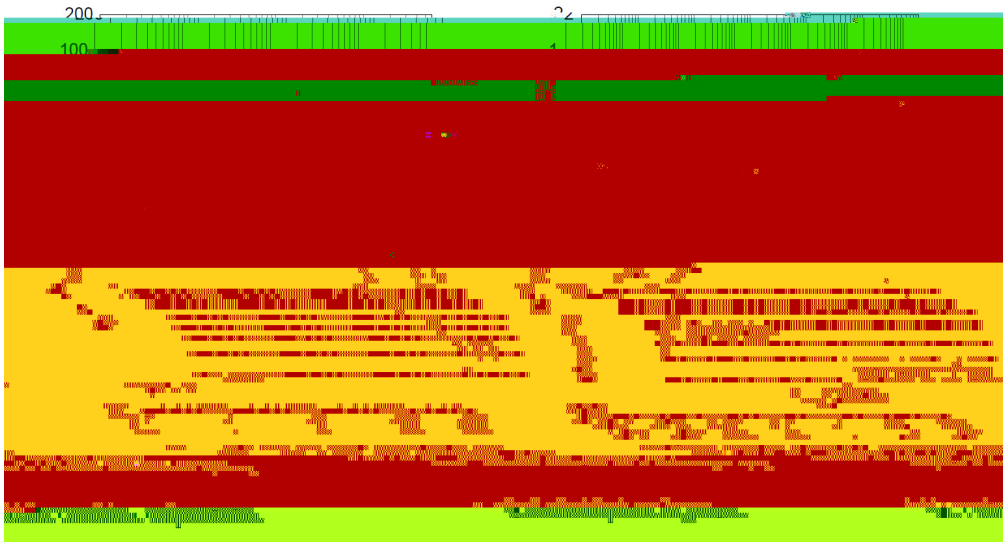
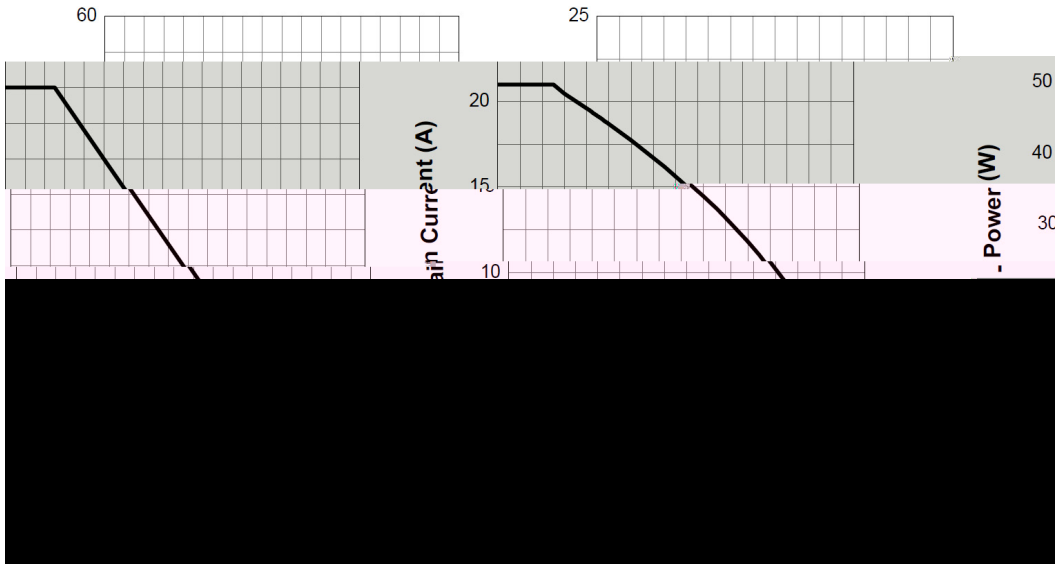
** Mounted on Large Heat Sink

Parameter	Symbol	Min	Max	Unit
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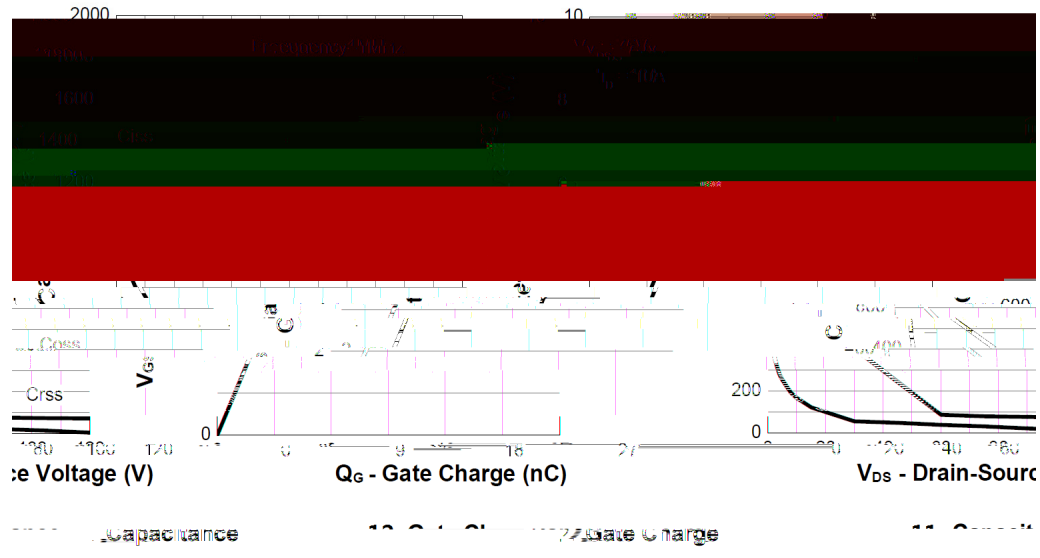
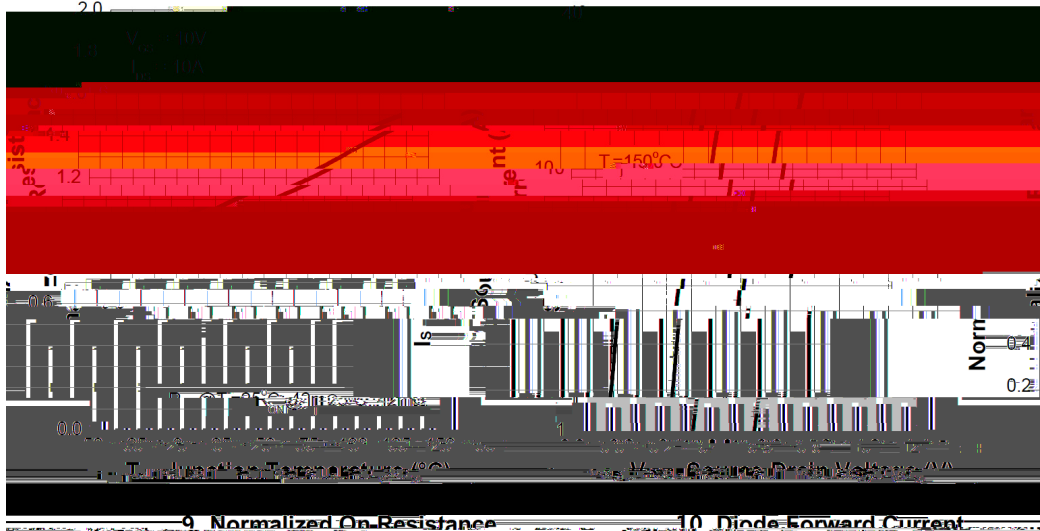
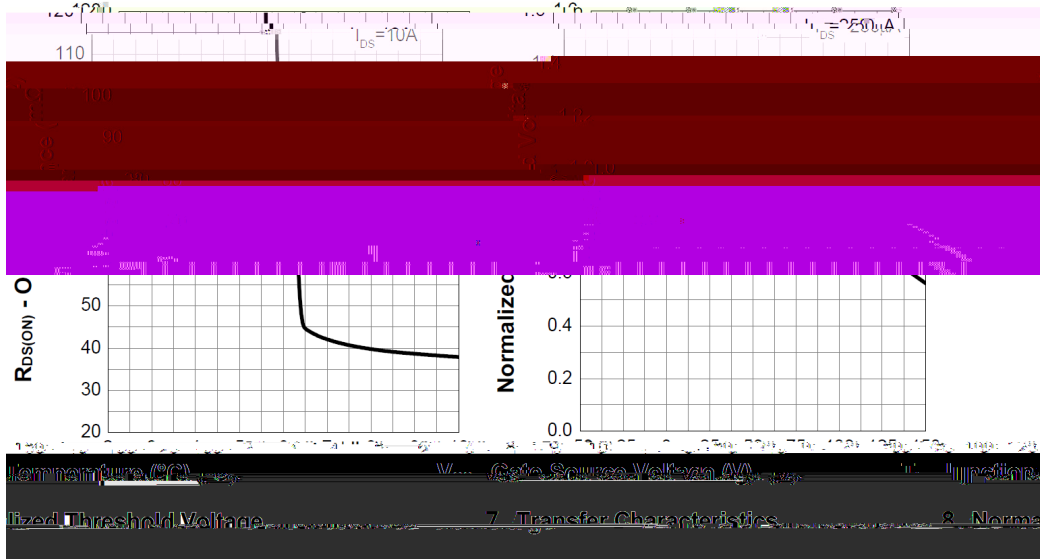
/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Total Gate Charge	Q_g	$V_{GS}=10V$ $V_{DS}=75V$ $I_D=10A$		25.8		nC
Gate Source Charge	Q_{gs}			8		
Gate Drain Charge	Q_{gd}			8.3		
Turn-On Delay Time	$t_{d(on)}$	$V_{GEN}=10V$ $V_{DS}=75V$ $I_{DS}=10A$ $R_G=4.5$ $R_L=7.5$		11		ns
Turn-On Rise Time	t_r			40		
Turn-Off Delay Time	$t_{d(off)}$			19		
Turn-Off Fall Time	t_f			32		

/ **Electrical Characteristic Curve**



/ Electrical Characteristic Curve



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/ Marking Instructions



450N15SH

Note:

BR: Company Code

450N15SH: Product Type Code

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

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