ˇYت / Descriptions

PDFN5Ö6 Ṃ Ƚ N ٽ ʆ ῲ Ẕ ᑉ
N-Channel MOSFET in a PDFN5×6 Plastic Package.

◕ Ȅ / Features

V_{DS}(V)=150V I_D=21A
$R_{DS(ON)}$@10V 45m (Typ.40m)
$R_{DS(ON)}$@6V 55m (Typ.45m)
ῆ ғ ᵝ HF Product.

ᵹ ڍ / Applications

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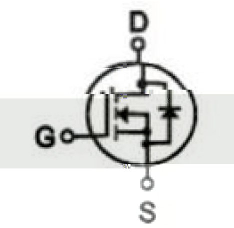
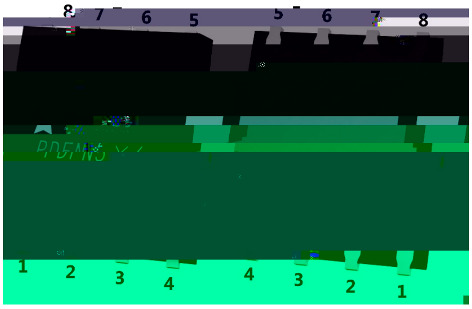
LCD TV appliances, High power inverter system, LCDM appliances.

ᏁᎧ ᾇ ᵶ ع / Equivalent Circuit



ẫ ʎ ὒ / Pinning



PIN1 2 3 S PIN4 G PIN5 6 7 8 D

ᵵ ʜ ɔ̇ / Marking

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See Marking Instructions.

v ̈Ω Parameter	ϒ N Symbol		
Drain-Source Voltage	V_{DS}		
Continuous Drain Current	$I_D(T_c=25\ \ )$		
	$I_D(T_c=100\ \ )$	13.8	
Pulsed Drain Current*	I_{DM}	84	
Gate-Source Voltage	V_{GS}	± 20	
Power Dissipation	$P_D(T_c=25\ \ )$	50	W
Junction and Storage Temperature Range	T_j, T_{stg}	-55 to 150	ł
Continuous-Source Current	I_S	21	A
Maximum Junction-to-Ambient**	$R_{\theta JA}$	50	/ W
Maximum Junction-to-Case**	$R_{\theta JC}$	2.5	

Notes

* Pulse width ≤ 300 s, duty cycle 2 %

** Mounted on Large Heat Sink

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Symbol

Min

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		

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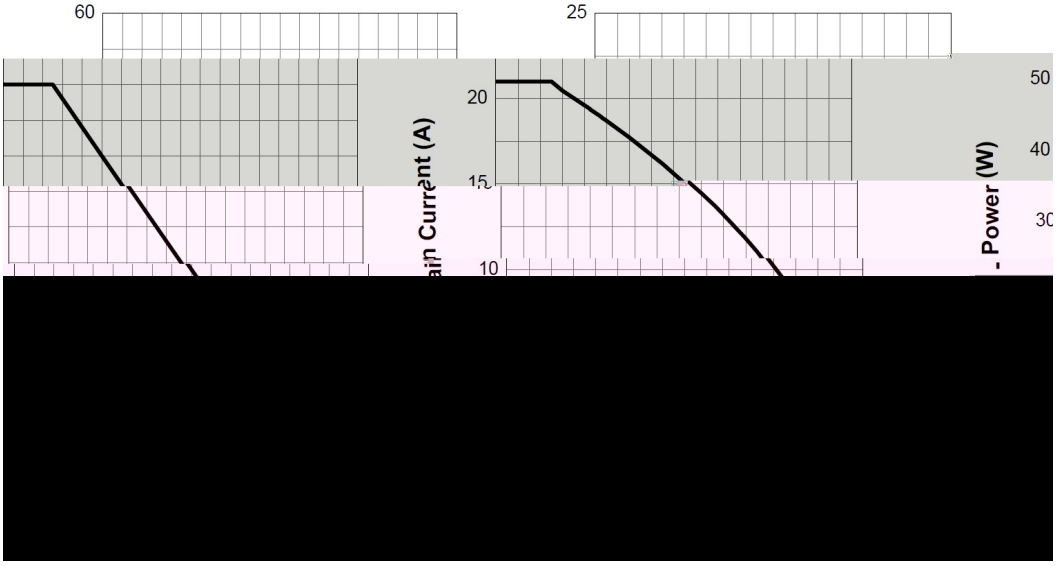
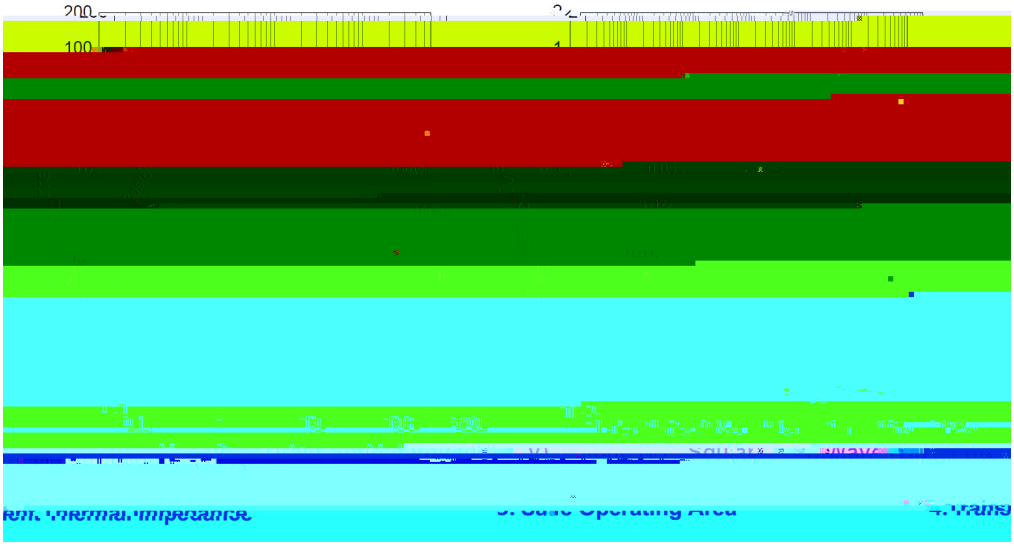
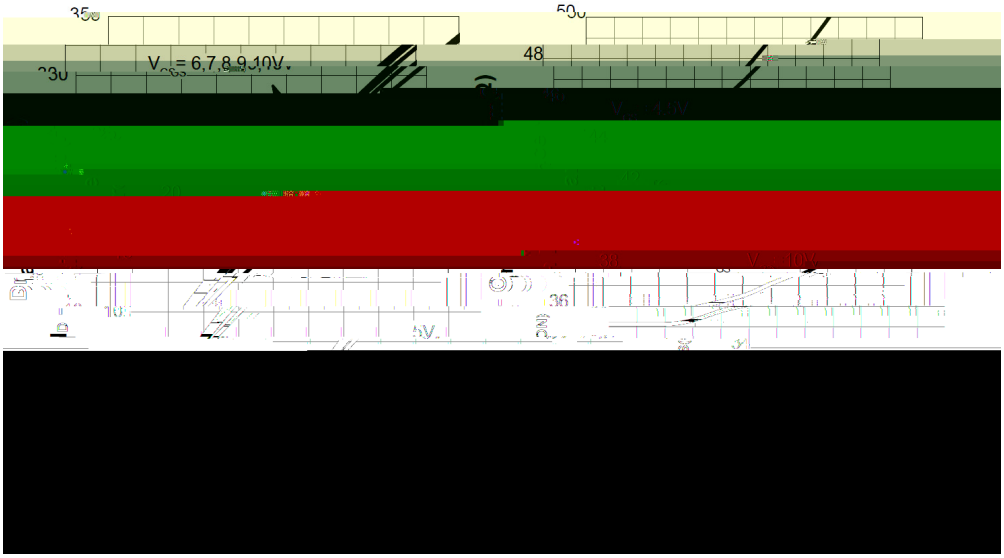
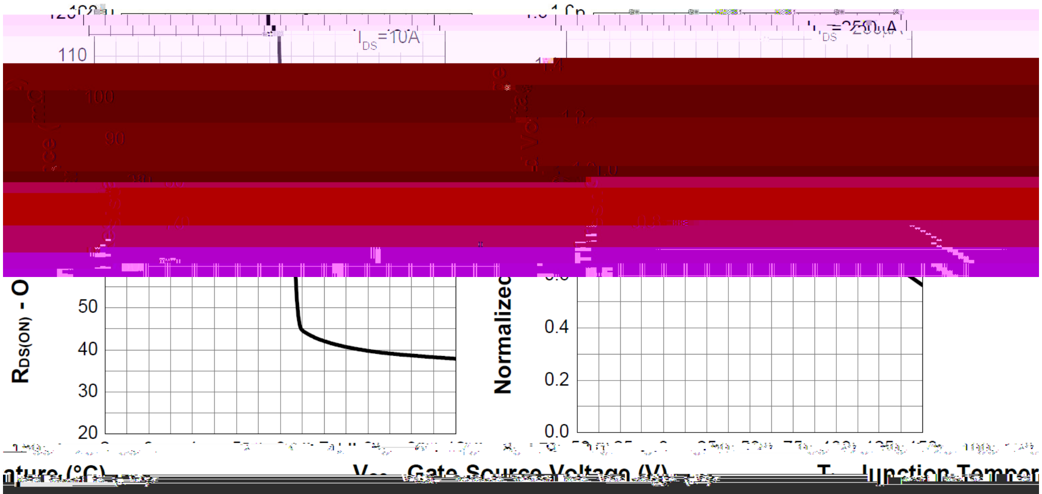


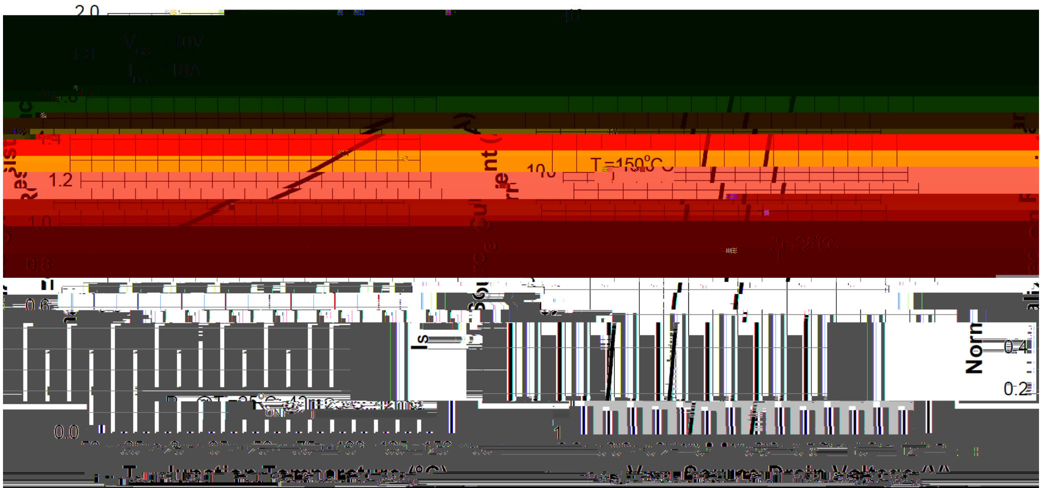




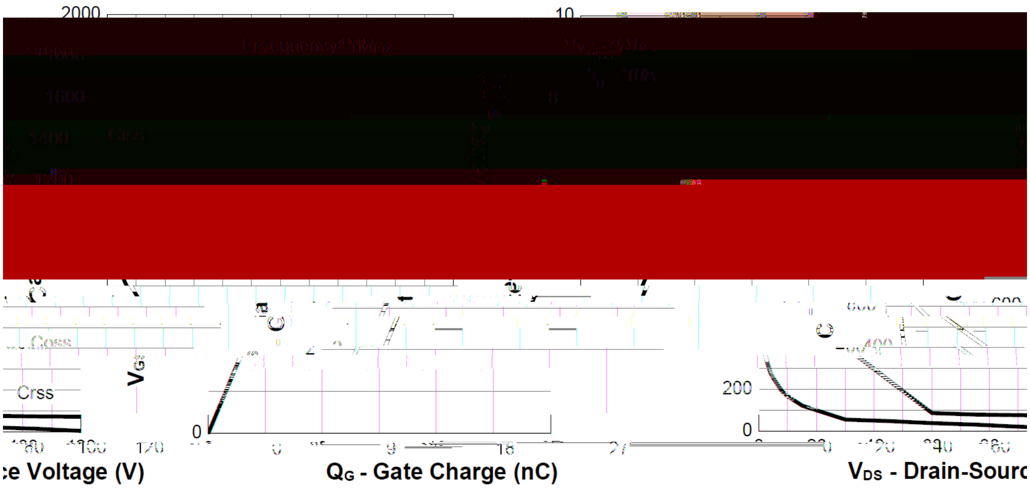
Electrical Characteristic Curve



7. Transfer Characteristics



9. Normalized On-Resistance
10. Diode Forward Current



Capacitance
Gate Charge

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Note:

BR: Company Code

450N15SH: Product Type Code

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

BRCS450N15SHZC

Rev.A Aug.-2025