# BRCS450N15SHZC

Rev.A Aug.-2025

DATA SHEET

## "Yش / Descriptions

PDFN5Ö6 Ṃ Ꝉ N ڜ ڧ ۋ Ƶ ٦

N-Channel MOSFET in a PDFN5×6 Plastic Package.

## ◕ È / Features

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

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

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

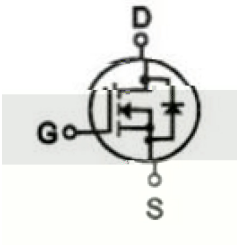
ڔ ғ β HF Product.

## ४ ڍ / Applications

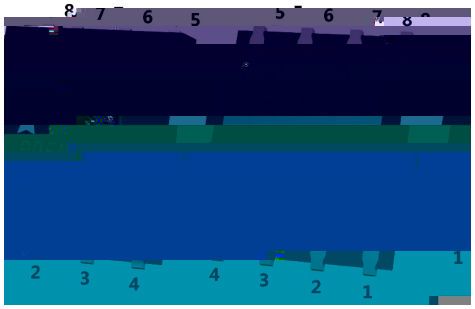
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LCD TV appliances, High power inverter system, LCDM appliances.

## Л ف ۊ ǫ ≠ ع / Equivalent Circuit




## ã ۸ ٷ / Pinning




PIN1 2 3 S PIN4 G PIN5 6 7 8 D

## ł. ʜ ڸ / Marking

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See Marking Instructions.

| v ̈Ω<br>Parameter | ϒ N<br>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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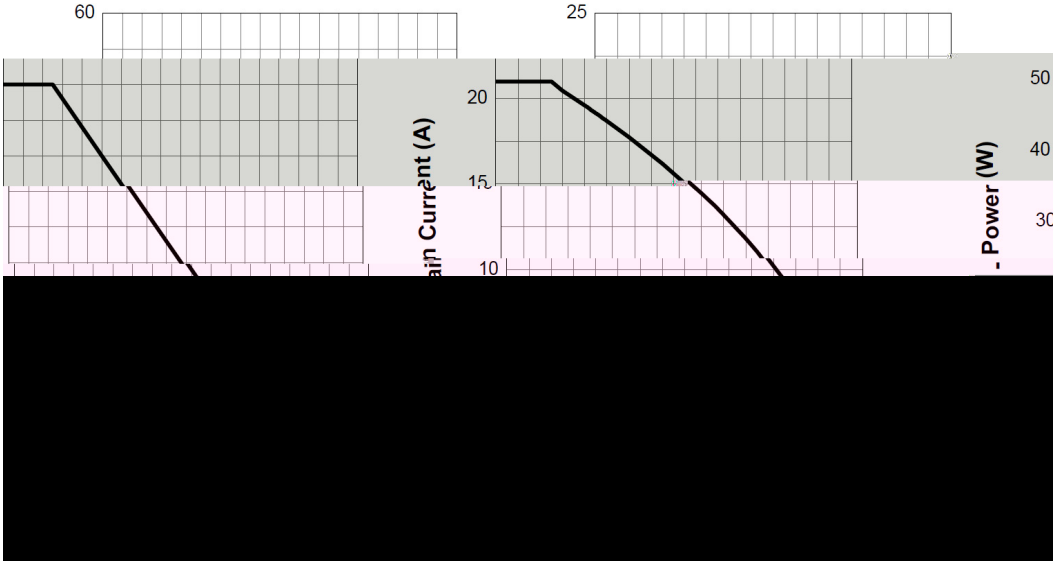
Symbol

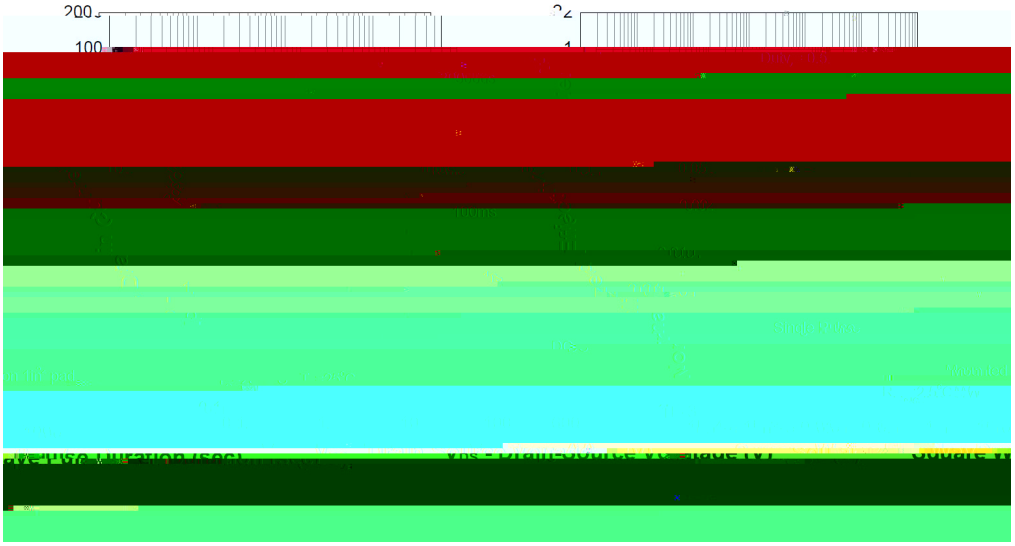
Min

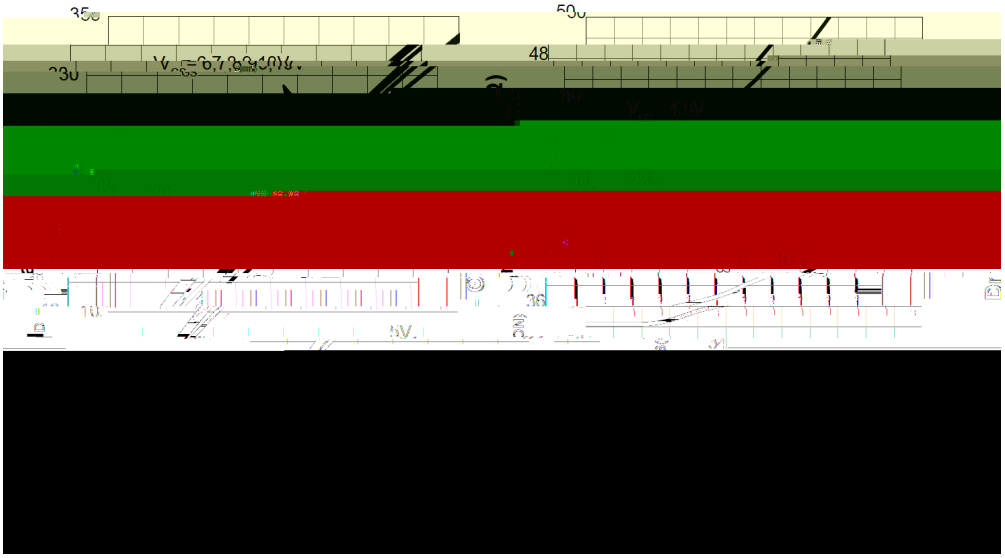
## ≠ ∧ Ǝ Ạ / Electrical Characteristics(Ta=25 ⅃ )

| v ̈Ω<br>Parameter | ϒ N<br>Symbol | ⅄ ⁝ ↾ ţ<br>Test Conditions | ѡ ṇ Ө<br>Min | Ɛ ʒ Ө<br>Typ | ѡ ᶻ Ө<br>Max | ᴅ Ꮒ<br>Unit |
|---|---|---|---|---|---|---|
| Total Gate Charge | $Q_g$ | $V_{GS}$=10V $V_{DS}$=75V<br>$I_D$=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<br>$I_{DS}$=10A $R_G$=4.5<br>$R_L$=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 | | |

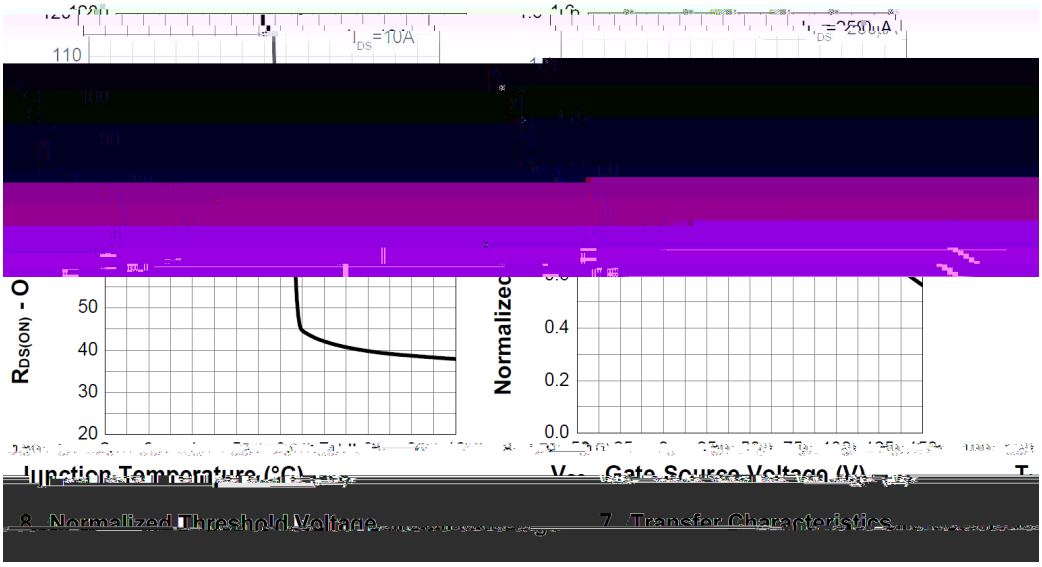
## ⁄ ∃ ̃Ą´E ∀ ƒ / Electrical Characteristic Curve

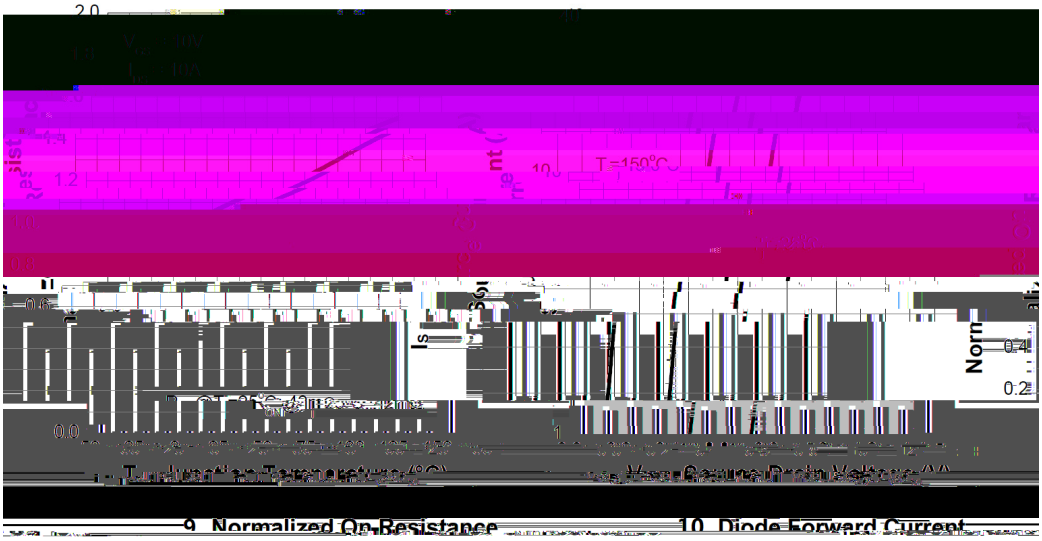


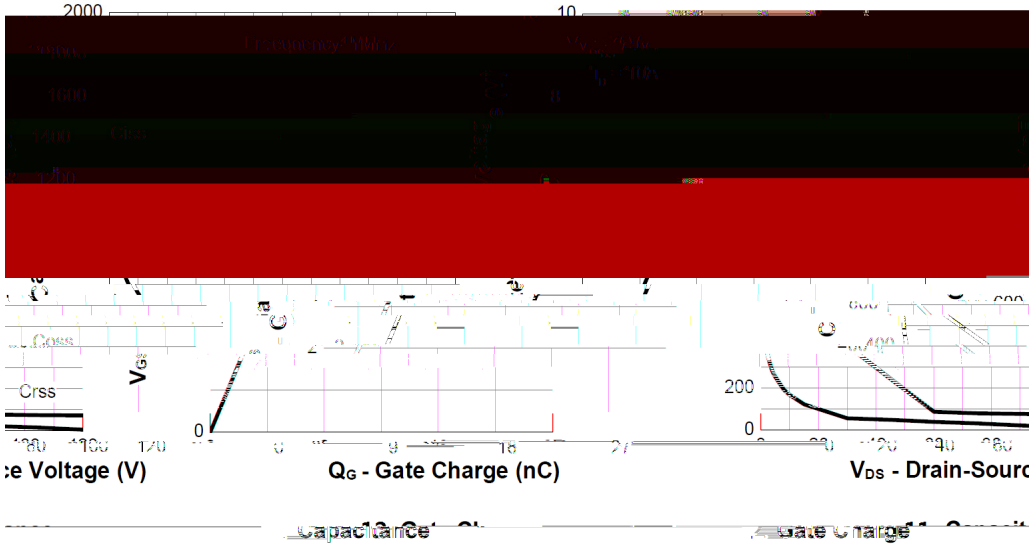



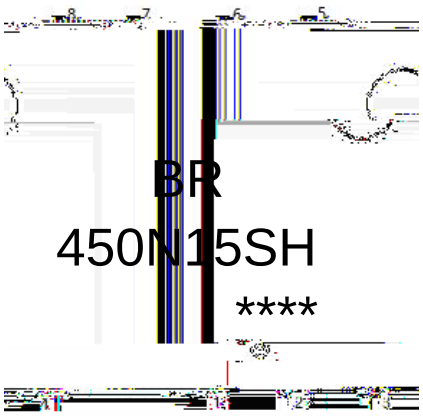
## ≠ ∃ Ã´E ∀ ƒ / Electrical Characteristic Curve



## ł. Ļ'Ω / Marking Instructions




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Note:

| | |
|---|---|
| BR: | Company Code |
| 450N15SH: | Product Type Code |
| ****: | Lot No. Code, code change with Lot No. |

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