## / Descriptions

PDFN5×6A N

Dual N-CHANNEL MOSFET in a PDFN5×6A Plastic Package .

## / Features

$V_{DS}$ (V) =100V $I_D$ =30A ($V_{GS}$ = ±20V)

$R_{DS(ON)}$@10V≤25mR(Typ.20mR)

$R_{DS(ON)}$@4.5V≤35mR(Typ.25mR)

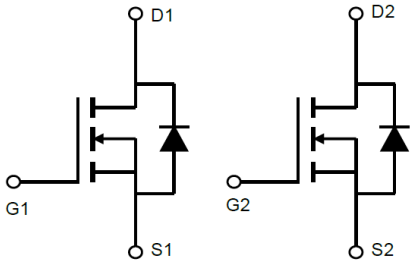
HF Product.

## / Applications

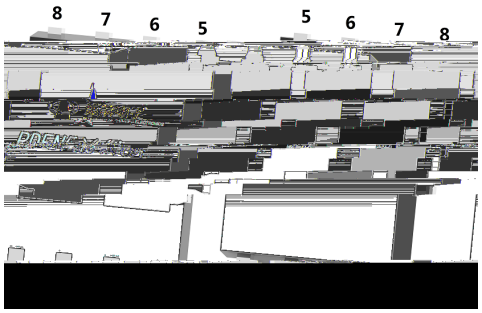
DC/DC

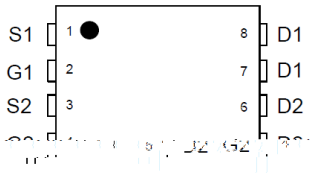
DC/DC Converter, Ideal for high-frequency switching and synchronous rectification.

## / Equivalent Circuit




## / Pinning




## / Marking

See Marking Instructions.

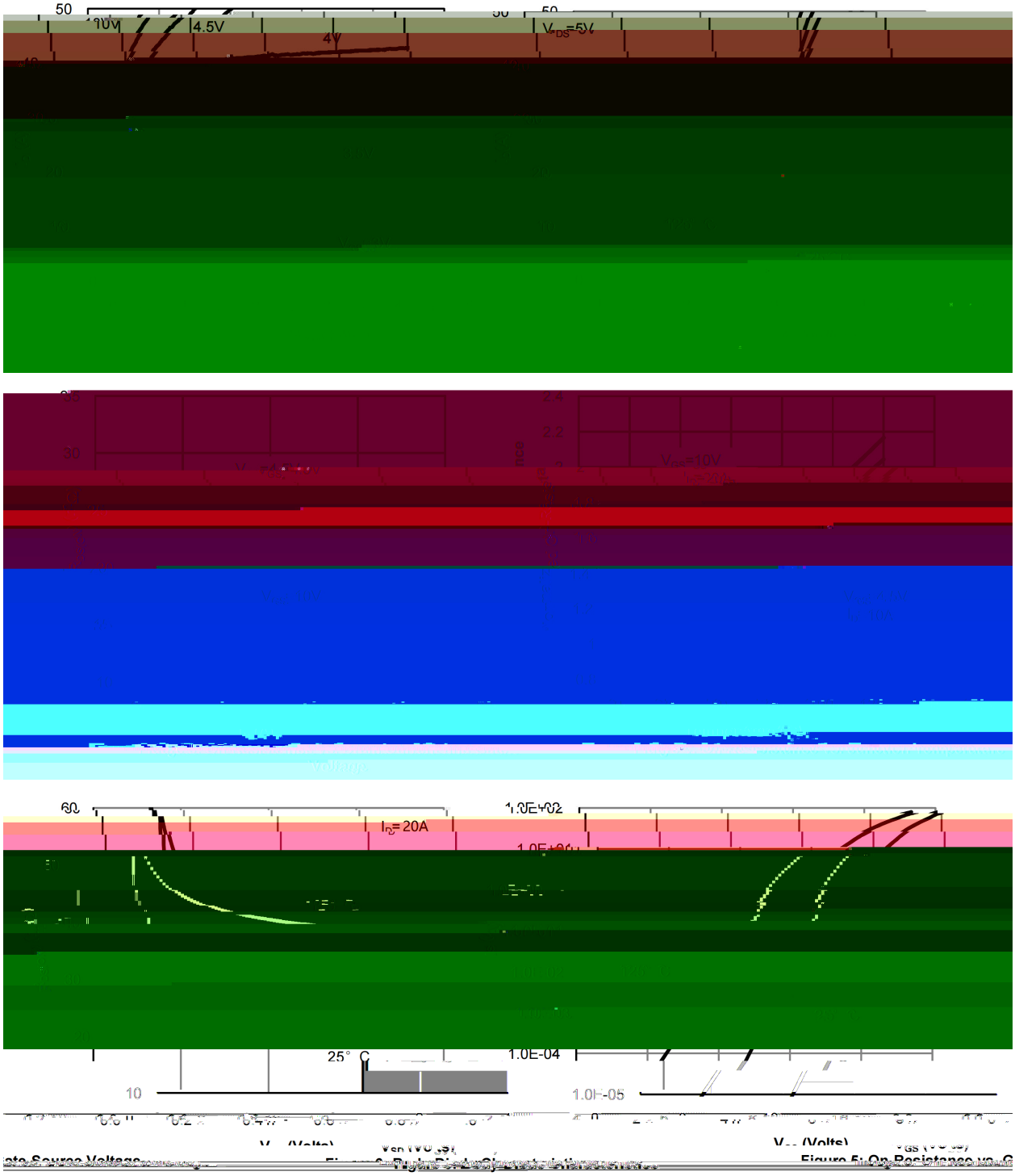
| Parameter | Symbol<br>Symbol | Rating | Unit |
|---|---|---|---|
| Drain-Source Voltage | $V_{DSS}$ | 100 | V |
| Drain Current | $I_D$(Tc=25 ) | 30 | A |
| Drain Current - Pulsed | $I_{DM}$ | 113 | A |
| Gate-Source Voltage | $V_{GS}$ | ±20 | V |
| Avalanche Current | $I_{AS}$ | 7 | A |
| Single Pulsed Avalanche Energy | $E_{AS}$ | 24.5 | mJ |
| Power Dissipation | P(Tc=25 ) P'0«îU3Hõp#Çqù G™2 | | |

Parameter

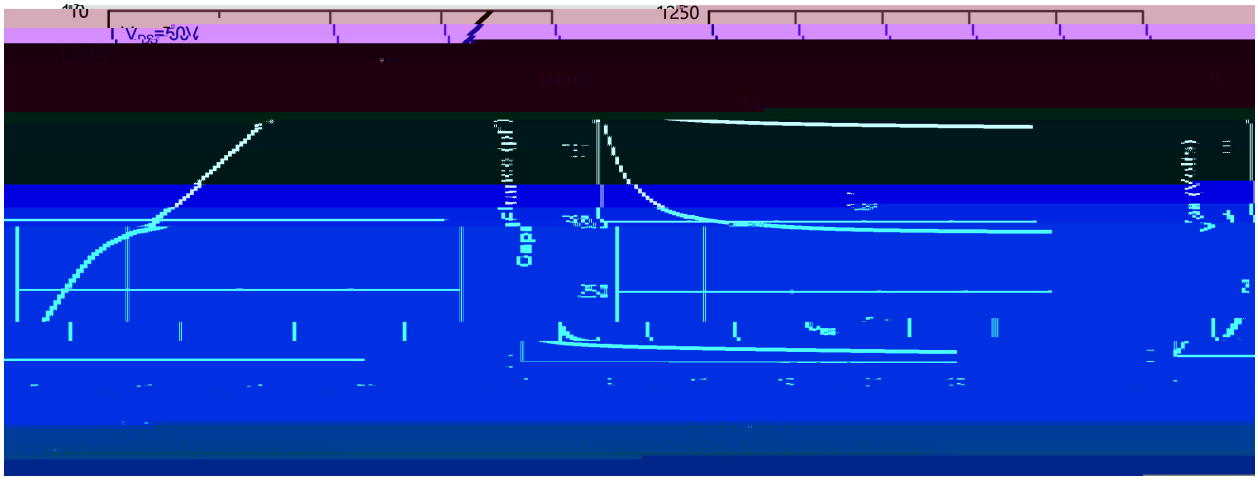
## / Electrical Characteristics(Ta=25 )

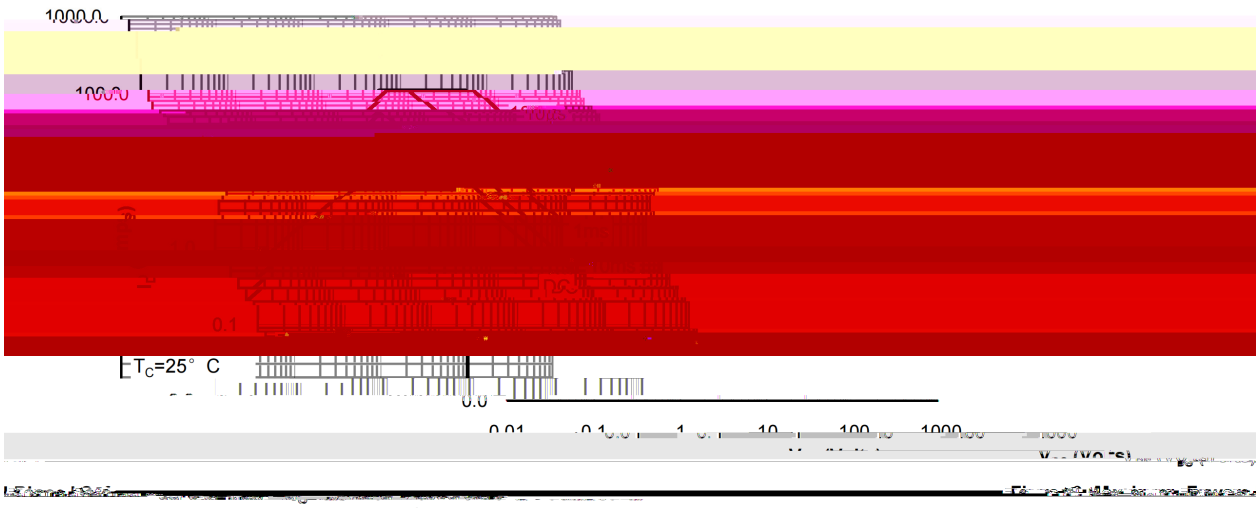
| Parameter | Symbol | Test Conditions | Min | Typ | Max | Unit |
|---|---|---|---|---|---|---|
| Turn-On Delay Time | $t_{d(on)}$ | $V_{GS}$=10V $V_{DS}$=50V<br>$R_L$=5.5Ω $R_{GEN}$=3.0Ω | | 5 | | ns |
| Turn-On Rise Time | $t_r$ | | | 3.2 | | |
| Turn-Off Delay Time | $t_{d(off)}$ | | | 21 | | |
| Turn-Off Fall Time | $t_f$ | | | 3 | | |

## / Electrical Characteristic Curve



## / Electrical Characteristic Curve






**Operating Area**

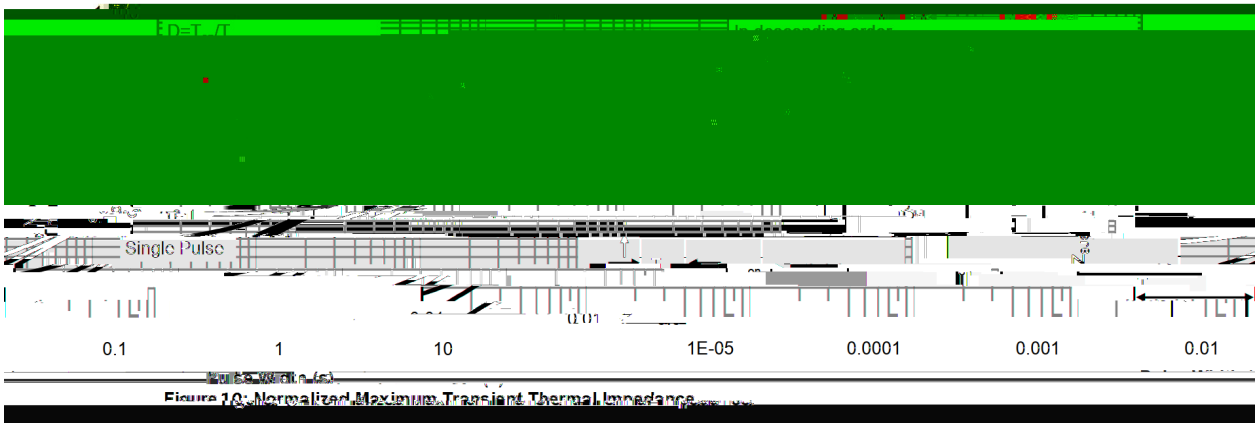
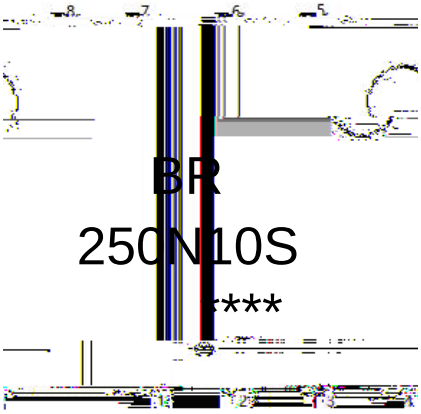



**Figure 10: Normalized Maximum Transient Thermal Impedance**

**BRCS250N10SYM**

## / Marking Instructions




BR

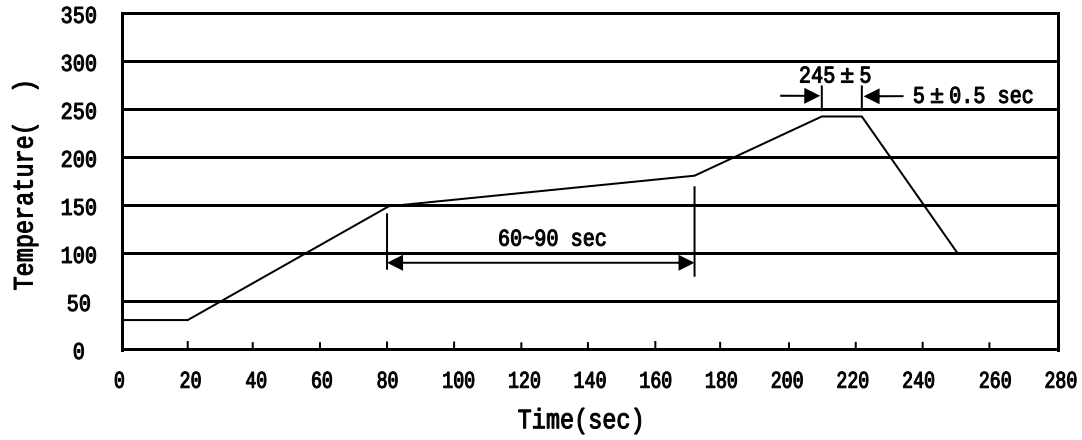
250N10S

****

Note

| | |
|---|---|
| BR | Company Code |
| 250N10S | Product Type Code |
| ****: | Lot No. Code, code change with Lot No |

## ( ) / Temperature Profile for IR Reflow Soldering(Pb-Free)




| | | | |
|---|---|---|---|
| | | | Note: |
| 1 | 150 180 | 60 90sec; | 1.Preheating:150~180 , Time:60~90sec. |
| 2 | 245±5 | 5±0.5sec; | 2.Peak Temp.:245±5 , Duration:5±0.5sec. |
| 3 | 2 10 /sec. | | 3. Cooling Speed: 2~10 /sec. |

## / Resistance to Soldering Heat Test Conditions

| | | | |
|---|---|---|---|
| 260±5 | 10±1 sec. | Temp.:260±5 | Time:10±1 sec |

## / Packaging SPEC.

/ REEL

| Package Type | Units | | | | | Dimension | | (unit mm³) |
|---|---|---|---|---|---|---|---|---|
| | Units/Reel / | Reels/Inner Box / | Units/Inner Box / | Inner Boxes/Outer Box / | Units/Outer Box / | Reel | Inner Box | Outer Box |
| PDFN5×6A | 5,000 | 2 | 10,000 | 6 | 60,000 | 13''×12 | 360×360×50 | 380×335×366 |

## / Notices