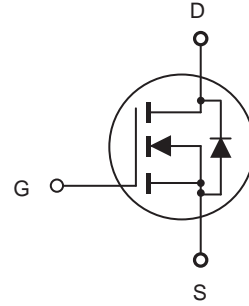


## N-Channel Enhancement Mode Field Effect Transistor

### FEATURES

- 70V, 11A,  $R_{DS(ON)} = 127m\Omega$  @  $V_{GS} = 10V$ .  
 $R_{DS(ON)} = 153m\Omega$  @  $V_{GS} = 5V$ .
- Super high dense cell design for extremely low  $R_{DS(ON)}$ .
- High power and current handling capability.
- Lead free product is acquired.
- TO-251 & TO-252 package.



### ABSOLUTE MAXIMUM RATINGS $T_C = 25^\circ\text{C}$ unless otherwise noted

| Parameter   | Symbol         | Limit      | Units               |
|---|----------------|------------|---------------------|
| Drain-Source Voltage  | $V_{DS}$       | 70         | V                   |
| Gate-Source Voltage   | $V_{GS}$       | $\pm 20$   | V                   |
| Drain Current-Continuous  | $I_D$          | 11         | A                   |
| Drain Current-Pulsed <sup>a</sup>   | $I_{DM}$       | 44         | A                   |
| Maximum Power Dissipation @ $T_C = 25^\circ\text{C}$<br>- Derate above $25^\circ\text{C}$ | $P_D$          | 28         | W                   |
|   |                | 0.22       | W/ $^\circ\text{C}$ |
| Single Pulsed Avalanche Energy <sup>d</sup>   | $E_{AS}$       | 70         | mJ                  |
| Single Pulsed Avalanche Current <sup>d</sup>  | $I_{AS}$       | 10         | A                   |
| Operating and Store Temperature Range   | $T_J, T_{stg}$ | -55 to 150 | $^\circ\text{C}$    |

### Thermal Characteristics

| Parameter                               | Symbol          | Limit | Units              |
|---|-----------------|-------|--------------------|
| Thermal Resistance, Junction-to-Case    | $R_{\theta JC}$ | 4.5   | $^\circ\text{C/W}$ |
| Thermal Resistance, Junction-to-Ambient | $R_{\theta JA}$ | 50    | $^\circ\text{C/W}$ |

[查询"CED13N07"供应商](#)



# CED13N07/CEU13N07

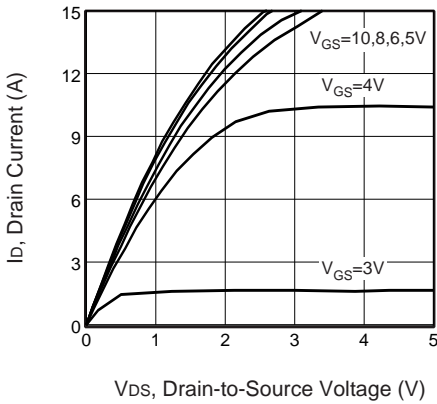


Figure 1. Output Characteristics

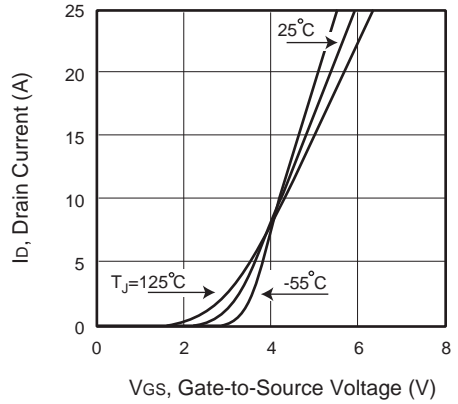


Figure 2. Transfer Characteristics

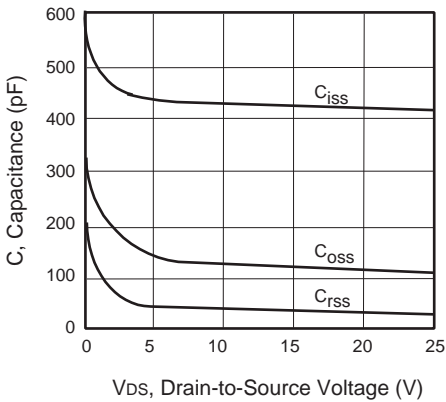


Figure 3. Capacitance

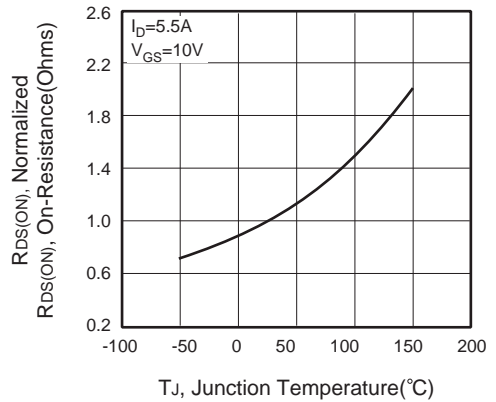


Figure 4. On-Resistance Variation with Temperature

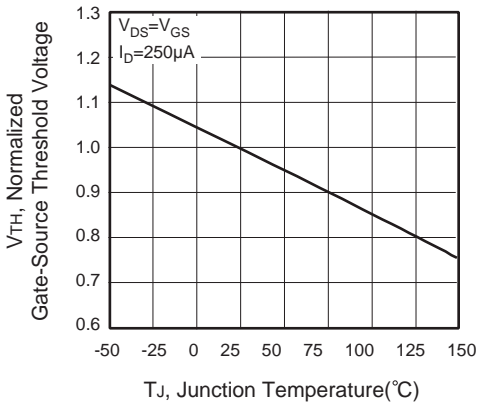


Figure 5. Gate Threshold Variation with Temperature

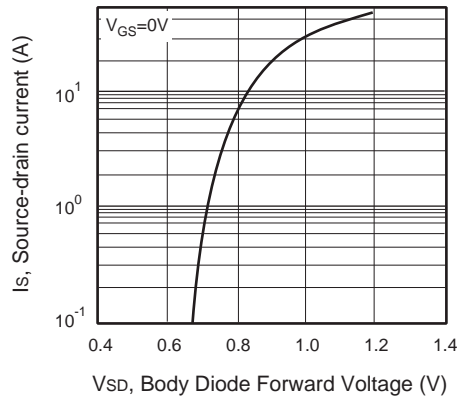


Figure 6. Body Diode Forward Voltage Variation with Source Current



# CED13N07/CEU13N07

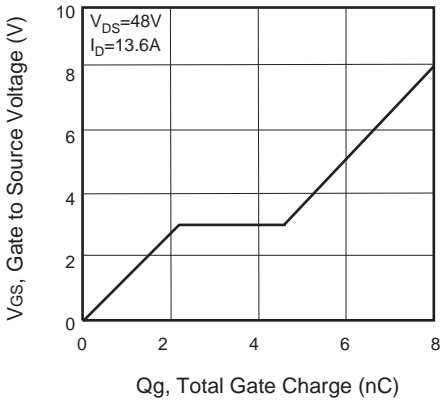


Figure 7. Gate Charge

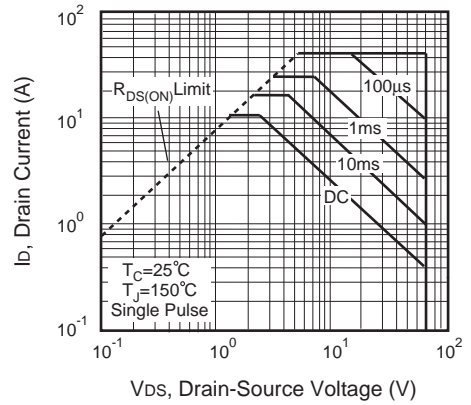


Figure 8. Maximum Safe Operating Area

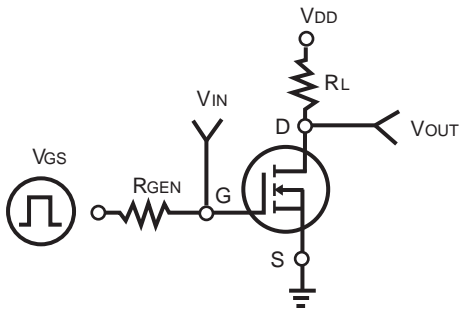


Figure 9. Switching Test Circuit

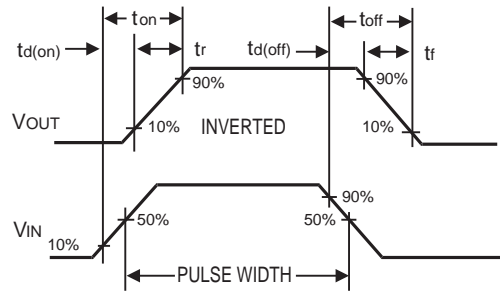


Figure 10. Switching Waveforms

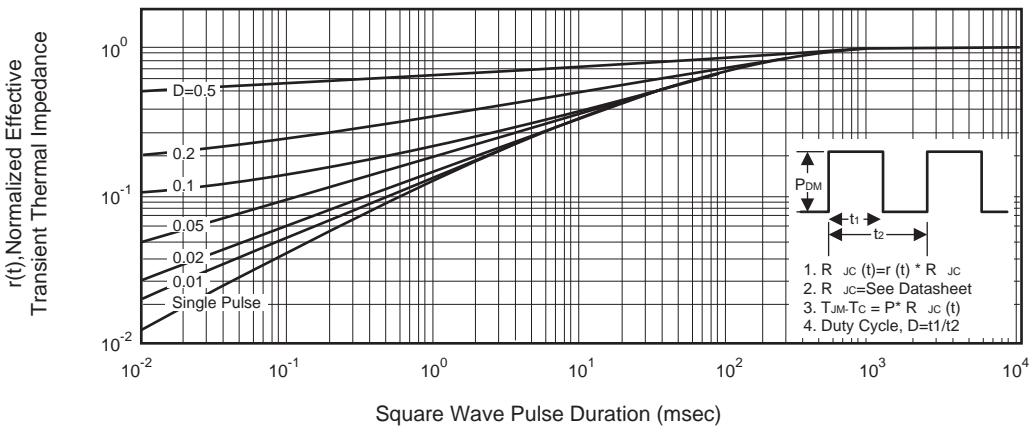


Figure 11. Normalized Thermal Transient Impedance Curve