

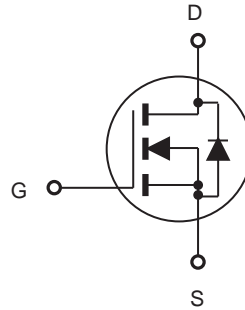
CEP10N4/CEB10N4 CEI10N4/CEF10N4

N-Channel Enhancement Mode Field Effect Transistor

FEATURES

Type	V _{DSS}	R _{DS(ON)}	I _D	@V _{GS}
CEP10N4	450V	0.7Ω	10A	10V
CEB10N4	450V	0.7Ω	10A	10V
CEI10N4	450V	0.7Ω	10A	10V
CEF10N4	450V	0.7Ω	10A ^e	10V

- Super high dense cell design for extremely low R_{DS(ON)}.
- High power and current handling capability.
- Lead free product is acquired.
- TO-220 & TO-263 & TO-262 package & TO-220F full-pak for through hole.



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

Parameter	Symbol	Limit		Units
		TO-220/263/262	TO-220F	
Drain-Source Voltage	V _{DS}	450		V
Gate-Source Voltage	V _{GS}	±30		V
Drain Current-Continuous	I _D	10	10 ^e	A
Drain Current-Pulsed ^a	I _{DM} ^f	40	40 ^e	A
Maximum Power Dissipation @ T _C = 25°C - Derate above 25°C	P _D	125	45	W
		1.0	0.36	W/°C
Single Pulsed Avalanche Energy ^d	E _{AS}	450	450	mJ
Single Pulsed Avalanche Current ^d	I _{AS}	10	10	A
Operating and Store Temperature Range	T _J , T _{stg}	-55 to 150		°C

Thermal Characteristics

Parameter	Symbol	Limit		Units
Thermal Resistance, Junction-to-Case	R _{θJC}	1.0	2.8	°C/W
Thermal Resistance, Junction-to-Ambient	R _{θJA}	62.5	65	°C/W

[查询"CEB10N4"供应商](#)



CEP10N4/CEB10N4 CEI10N4/CEF10N4

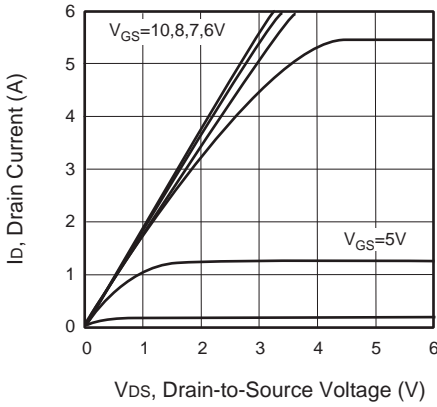


Figure 1. Output Characteristics

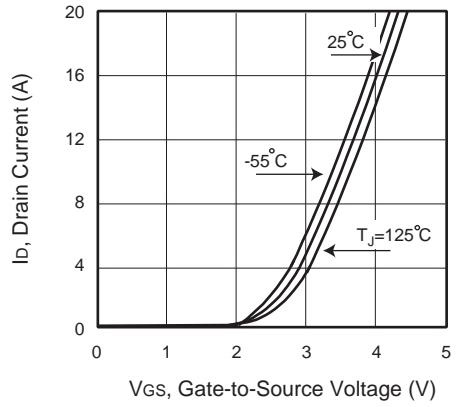


Figure 2. Transfer Characteristics

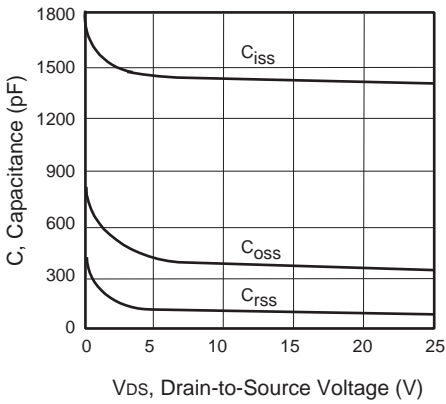


Figure 3. Capacitance

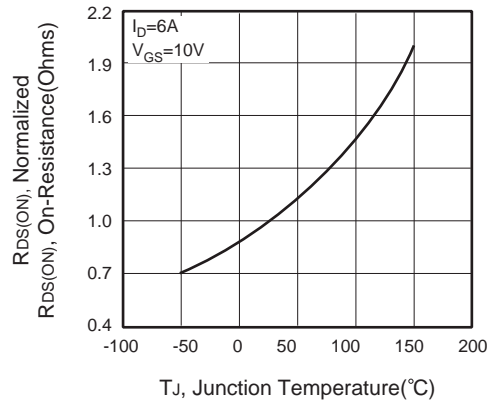


Figure 4. On-Resistance Variation with Temperature

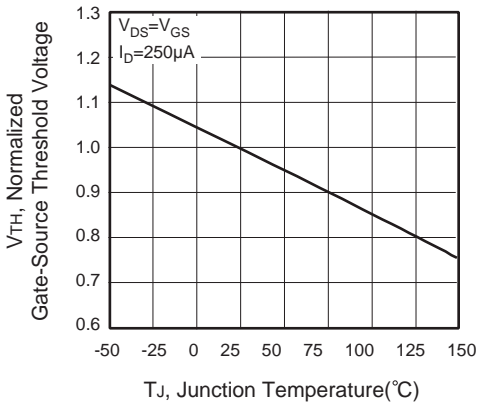


Figure 5. Gate Threshold Variation with Temperature

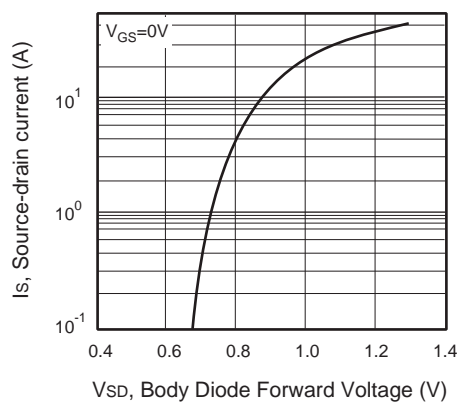


Figure 6. Body Diode Forward Voltage Variation with Source Current



CEP10N4/CEB10N4 CEI10N4/CEF10N4

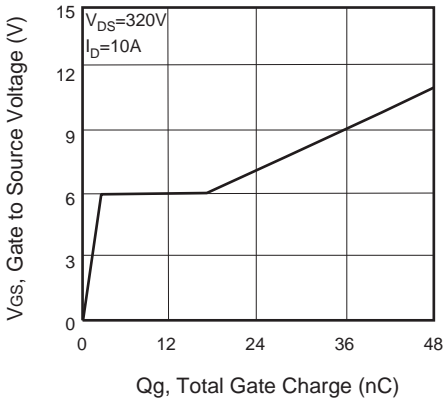


Figure 7. Gate Charge

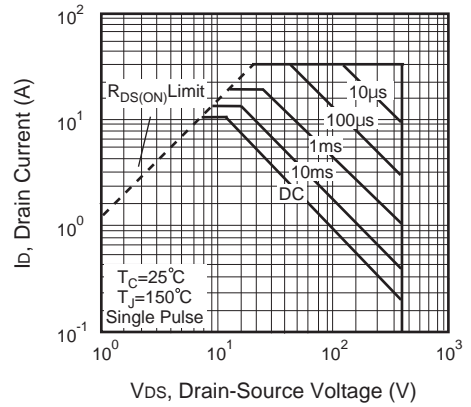


Figure 8. Maximum Safe Operating Area

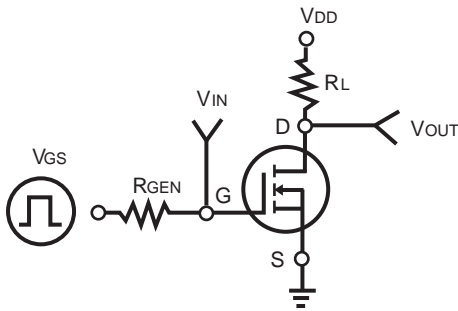


Figure 9. Switching Test Circuit

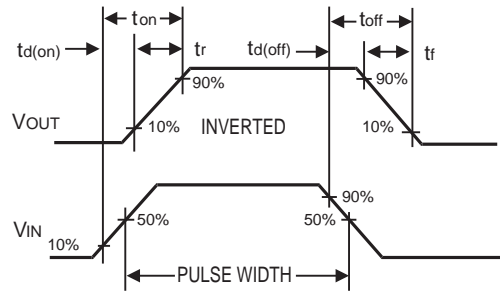


Figure 10. Switching Waveforms

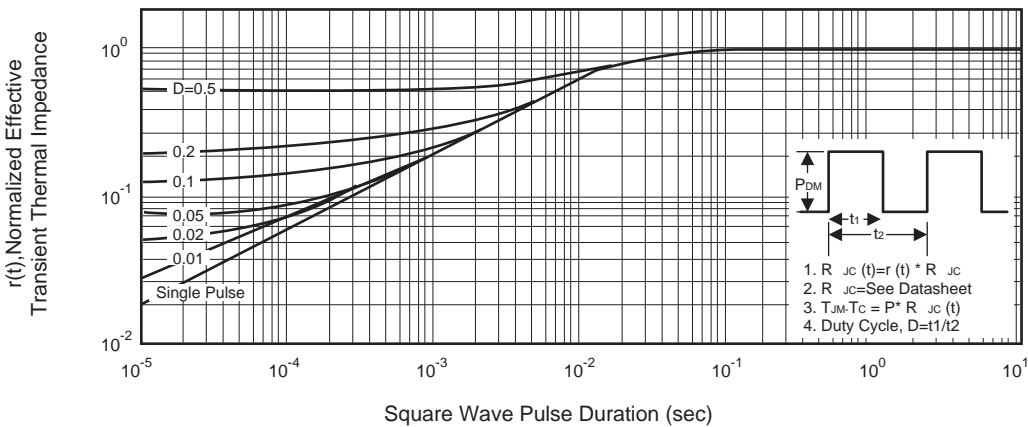


Figure 11. Normalized Thermal Transient Impedance Curve