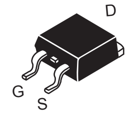
CEP1165/CEB1165
CEF1165

N-Channel Enhancement Mode Field Effect Transistor

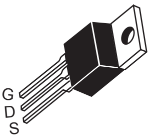
FEATURES

Type	V_{DSS}	$R_{DS(ON)}$	I_D	@V_{GS}
CEP1165	600V	0.9Ω	10A	10V
CEB1165	600V	0.9Ω	10A	10V
CEF1165	600V	0.9Ω	10A [e]	10V

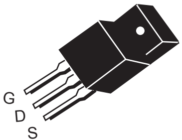
- Super high dense cell design for extremely low $R_{DS(ON)}$.
- High power and current handing capability.
- Lead free product is acquired.



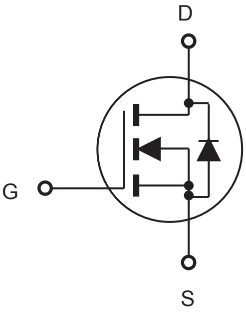
CEB SERIES
TO-263(DD-PAK)



CEP SERIES
TO-220



CEF SERIES
TO-220F



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

Parameter	Symbol	Limit		Units
		TO-220/263	TO-220F	
Drain-Source Voltage	V_{DS}	600		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 @ $T_C = 25^\circ C$	P_D	167	50	W
- Derate above 25°C		1.33	0.4	W/°C
Operating and Store Temperature Range	T_J,T_{stg}	-55 to 150		°C

Thermal Characteristics

Parameter	Symbol	Limit		Units
Thermal Resistance, Junction-to-Case	$R_{\theta JC}$	0.75	2.5	°C/W
Thermal Resistance, Junction-to-Ambient	$R_{\theta JA}$	62.5	65	°C/W

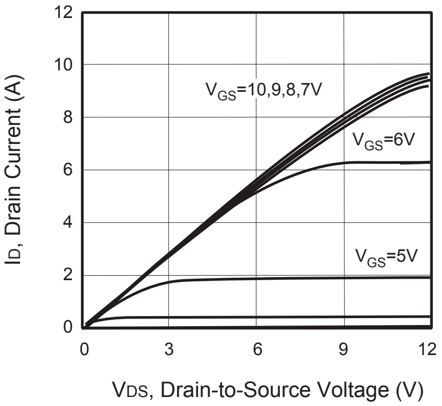


Figure 1. Output Characteristics

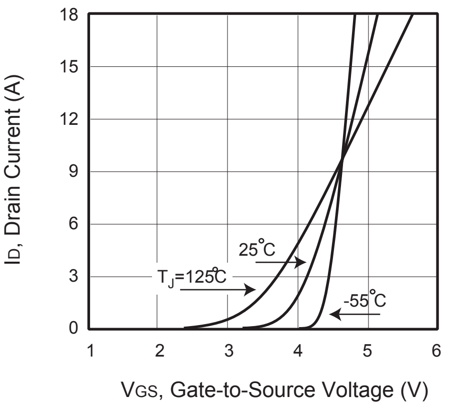


Figure 2. Transfer Characteristics

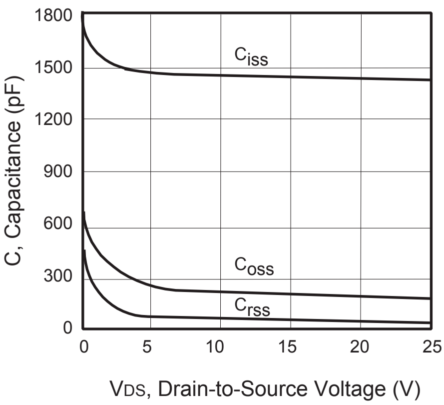


Figure 3. Capacitance

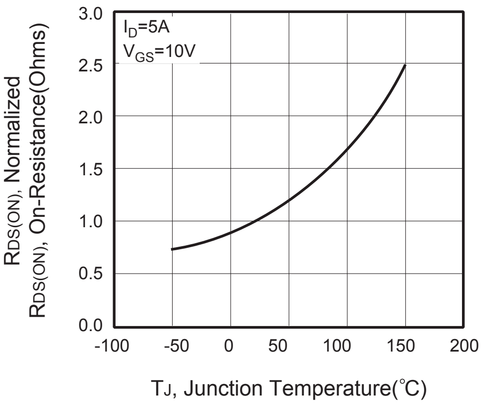


Figure 4. On-Resistance Variation with Temperature

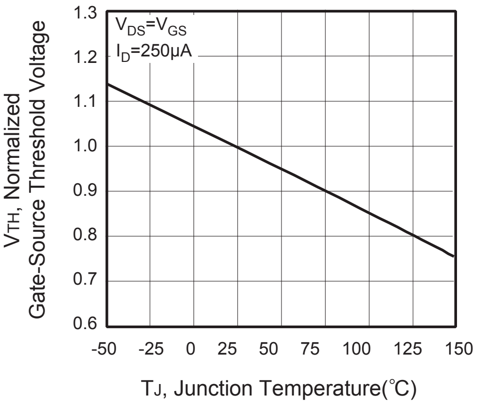


Figure 5. Gate Threshold Variation with Temperature

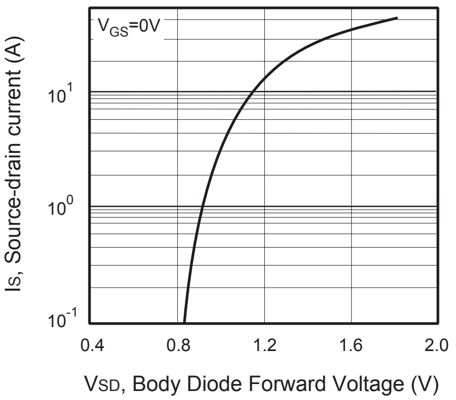


Figure 6. Body Diode Forward Voltage Variation with Source Current

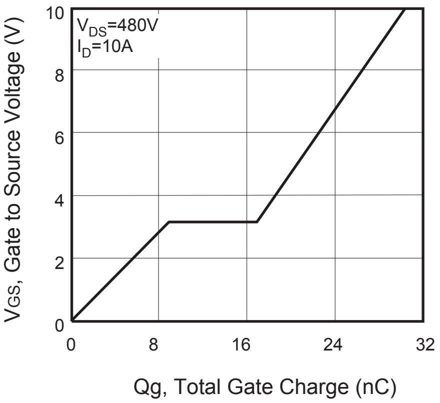


Figure 7. Gate Charge

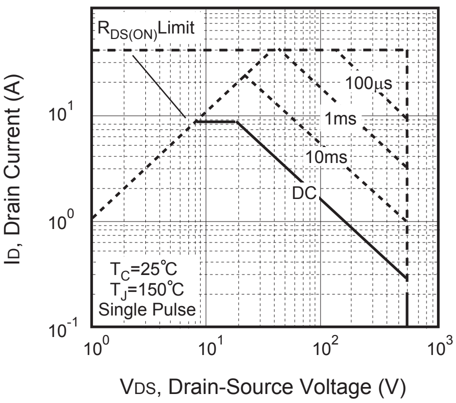


Figure 8. Maximum Safe Operating Area

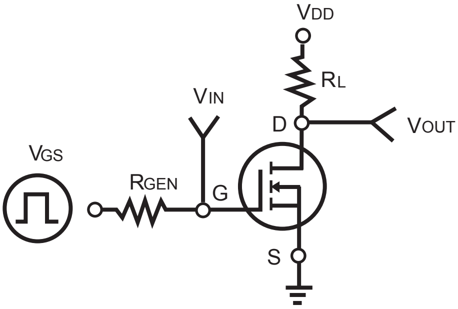


Figure 9. Switching Test Circuit

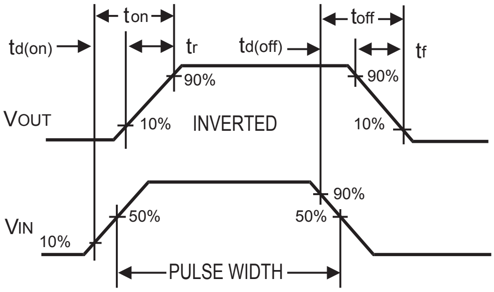


Figure 10. Switching Waveforms

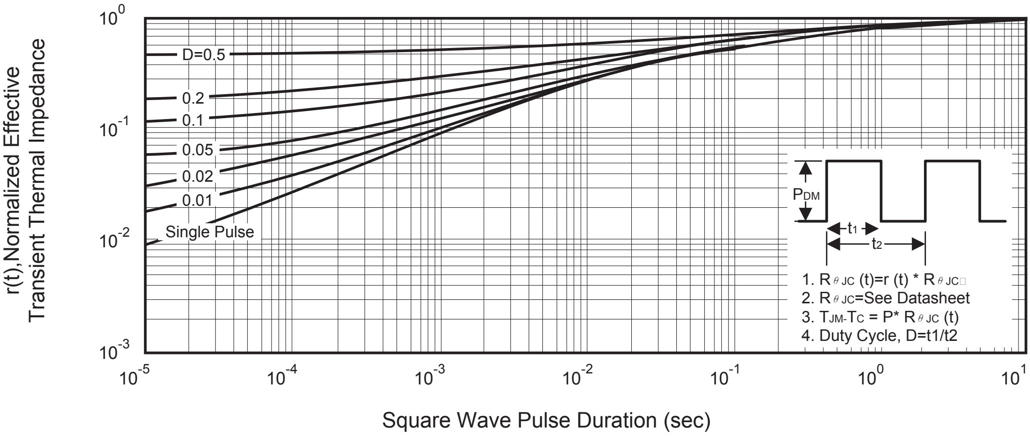


Figure 11. Normalized Thermal Transient Impedance Curve