



CEP76139/CEB76139

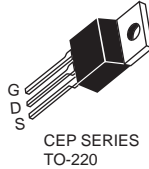
N-Channel Enhancement Mode Field Effect Transistor

FEATURES

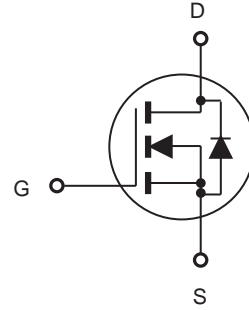
- 30V, 75A, $R_{DS(ON)} = 7m\Omega$ @ $V_{GS} = 10V$.
 $R_{DS(ON)} = 10m\Omega$ @ $V_{GS} = 4.5V$.
- Super high dense cell design for extremely low $R_{DS(ON)}$.
- High power and current handling capability.
- Lead free product is acquired.
- 100% avalanche tested.
- TO-220 & TO-263 package.



CEB SERIES TO-263(DD-PAK)



CEP SERIES TO-220



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

Parameter	Symbol	Limit	Units
Drain-Source Voltage	V_{DS}	30	V
Gate-Source Voltage	V_{GS}	± 20	V
Drain Current-Continuous	I_D	75	A
Drain Current-Pulsed ^a	I_{DM}	225	A
Maximum Power Dissipation @ $T_C = 25^\circ C$ - Derate above $25^\circ C$	P_D	75	W
		0.5	W/ $^\circ C$
Single Pulsed Avalanche Energy ^d	E_{AS}	228	mJ
Single Pulsed Avalanche Current ^d	I_{AS}	100	A
Operating and Store Temperature Range	T_J, T_{stg}	-55 to 175	$^\circ C$

Thermal Characteristics

Parameter	Symbol	Limit	Units
Thermal Resistance, Junction-to-Case	$R_{\theta JC}$	2.0	$^\circ C/W$
Thermal Resistance, Junction-to-Ambient	$R_{\theta JA}$	62.5	$^\circ C/W$

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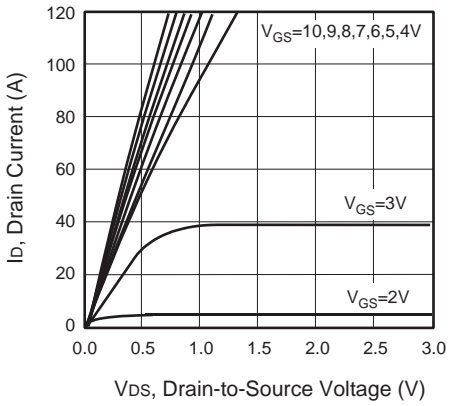


Figure 1. Output Characteristics

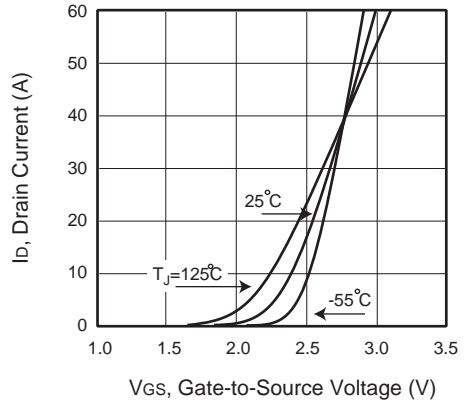


Figure 2. Transfer Characteristics

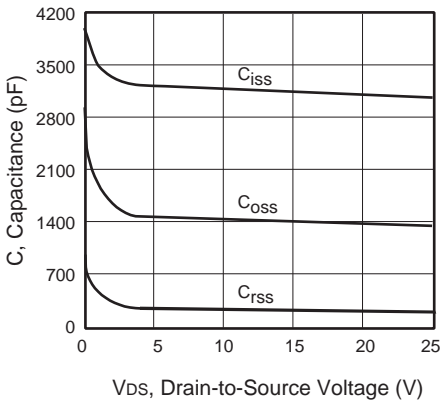


Figure 3. Capacitance

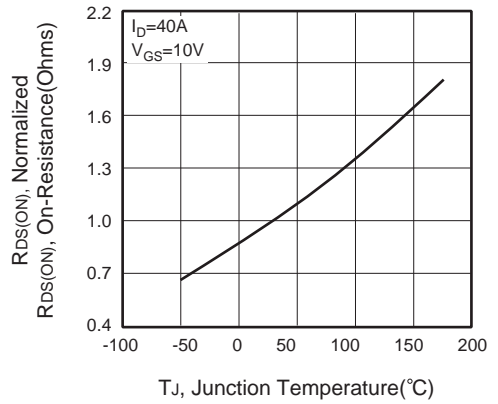


Figure 4. On-Resistance Variation with Temperature

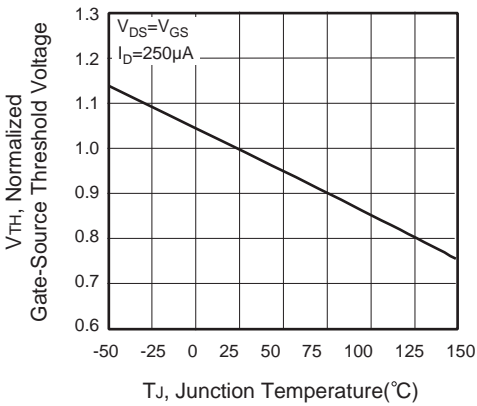


Figure 5. Gate Threshold Variation with Temperature

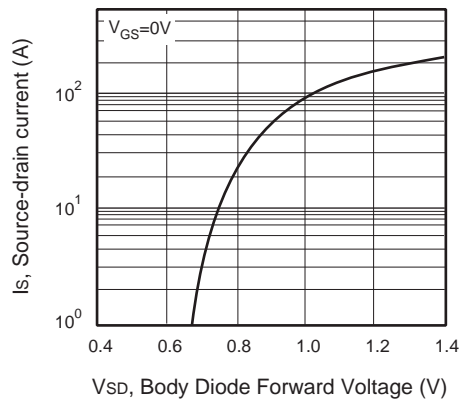


Figure 6. Body Diode Forward Voltage Variation with Source Current

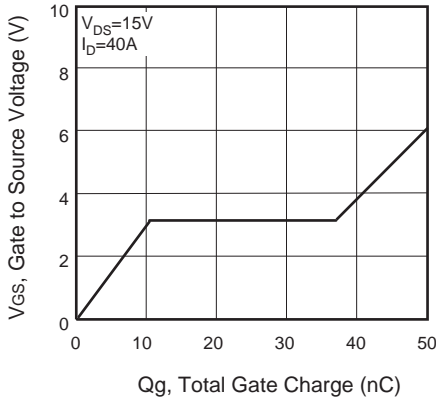


Figure 7. Gate Charge

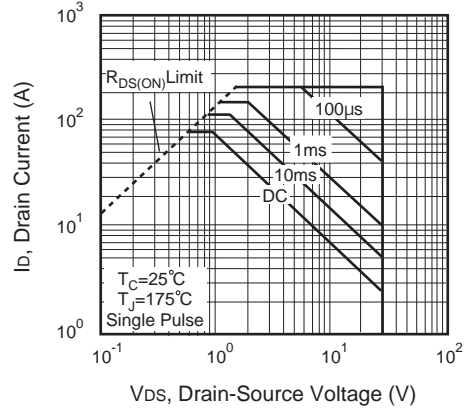


Figure 8. Maximum Safe Operating Area

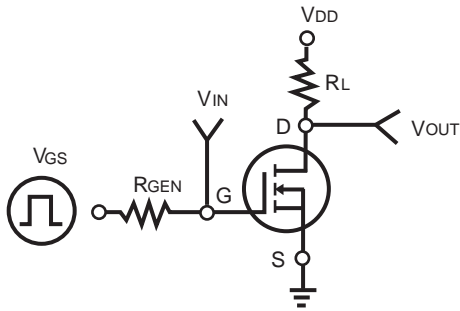


Figure 9. Switching Test Circuit

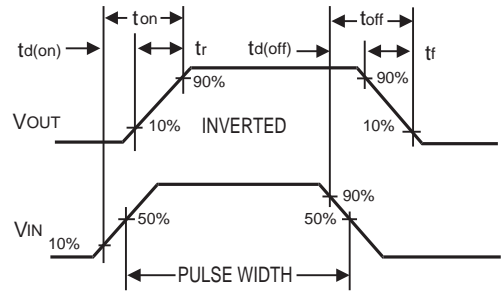


Figure 10. Switching Waveforms

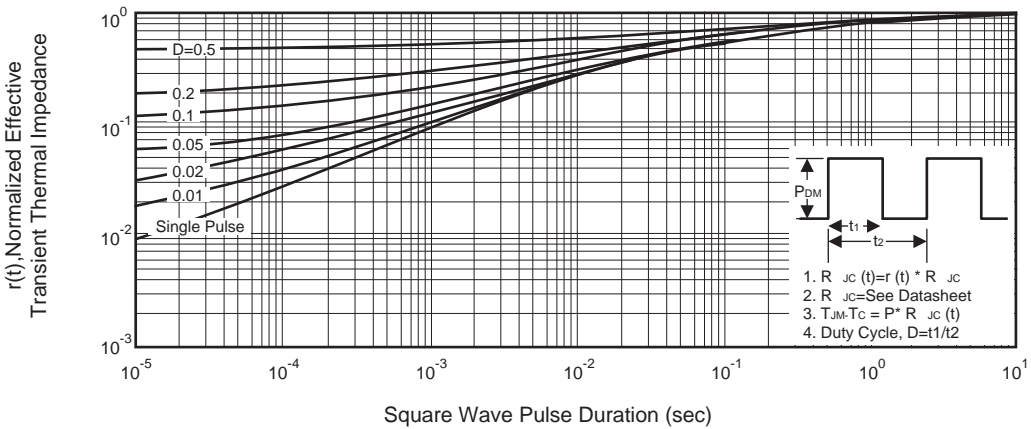


Figure 11. Normalized Thermal Transient Impedance Curve