Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DSS}	60	V
Drain-Gate Voltage	V_{DGR}	60	V
Drain Current - Continuous	I_D Ta=25	300	mA
	I_D Ta=85	210	
Drain Current - Pulsed(Note 1)	I_{DM}	1200	mA
Gate-Source Voltage - Continuous	V_{GSS}	±20	V
Power Dissipation	P_D	350	mW
Junction Temperature Range	T_j	150	
Storage Temperature Range	T_{stg}	-55 150	
Maximum Junction-to-Ambient(Note 2)	$R_{\theta JA}$(Steady State)	300	/W
	$R_{\theta JA}$($t \le 5s$)	92	

Note 1) Pulse Width10us, Duty Cycle 1%

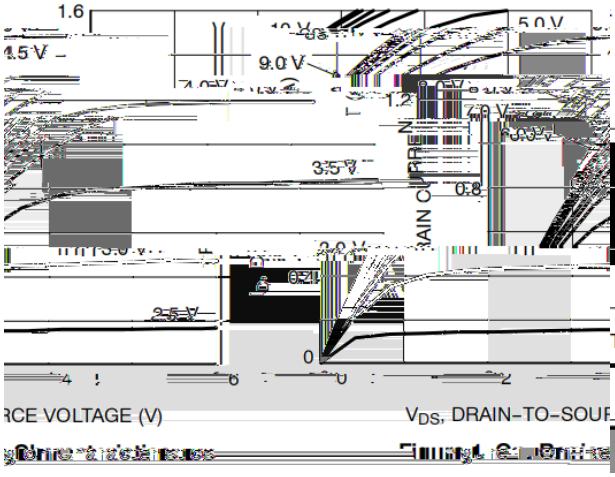
Note 2)Surface−mounted on FR4 board using 1 sq in pad size with 1 oz Cu

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain–Source Breakdown Voltage	V_{DSS}	V_{GS}=0 I_D=250μA	60			V
Zero Gate Voltage Drain Current	I_{DSS}	V_{GS}=0 V_{DS}=60V			1.0	μA
Gate-Source Leakage current	I_{GSS}	V_{DS}=0V V_{GS}=±20V			±10	μA
Static Drain-Source On-Resistance	$R_{DS(on)(1)}$	V_{GS}=10V I_D=0.5A			2.3	Ω
	$R_{DS(on)(2)}$	V_{GS}=5V I_D=0.05A		1.7	2.7	Ω
Drain-Source Diode Forward Voltage	V_{SD}	V_{GS}=0V I_S=250mA			1.5	V
Gate Threshold Voltage	$V_{GS(th)}$	V_{DS}=V_{GS} I_D=250uA	1.0	1.5	2.5	V
Forward Transconductance	Y_{fs}	V_{DS}=10V I_D=0.2A	80			mS
Input Capacitance	Ciss	V_{GS}=0V, f=1MHz, V_{DS}=20V			50	pF V

/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Turn On Delay Time	$t_{d(ON)}$	V_{GS}=10V, V_{DD}=25V, I_D=500mA, R_G=25Ω		35		ns
Rise Time	t_r			75		
Turn Off Delay Time	$t_{d(OFF)}$			305		
Fall Time	t_f			260		

/ Electrical Characteristic Curve



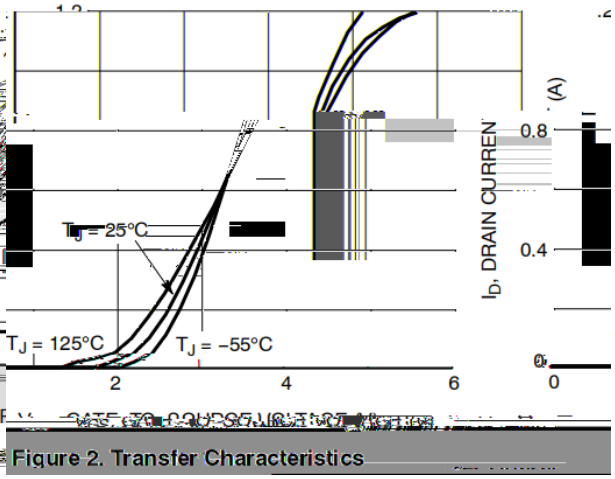


Figure 2. Transfer Characteristics

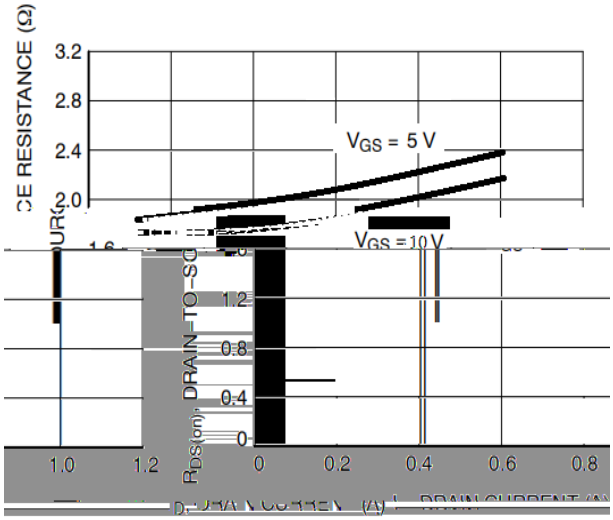
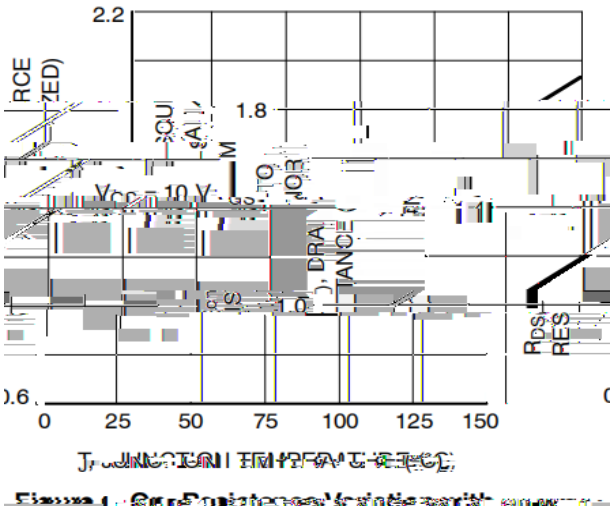


Figure 3. On−Resistance vs. Drain Current and



Temperature

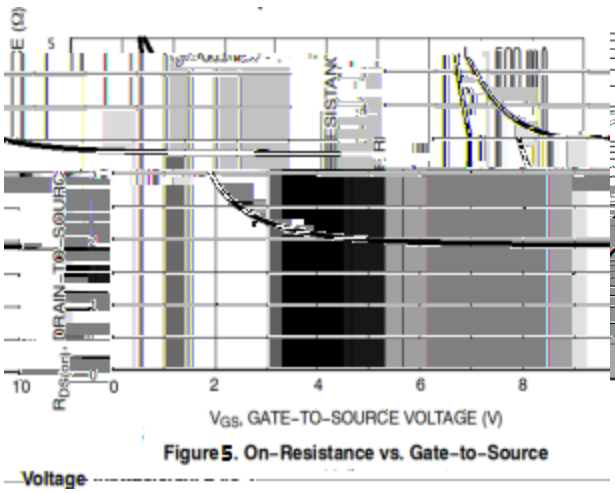


Figure 5. On−Resistance vs. Gate-to-Source Voltage

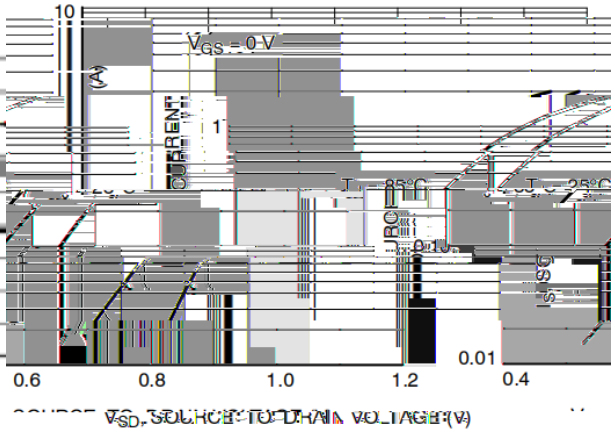


Figure 6 Diode Forward Voltage vs. Current

/ Electrical Characteristic Curve

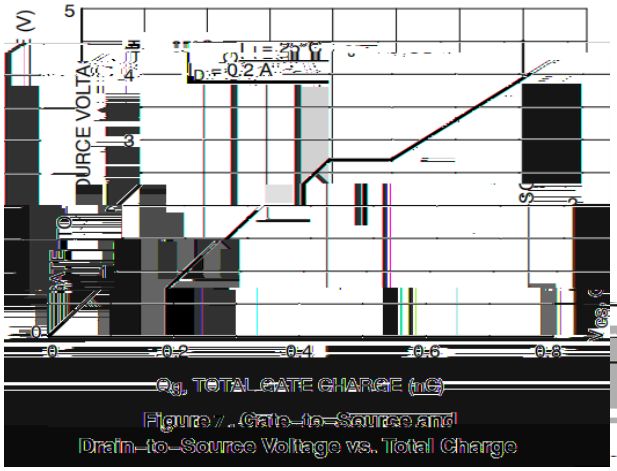


Figure 7. Gate-to-Source and Drain-to-Source Voltage vs. Total Charge

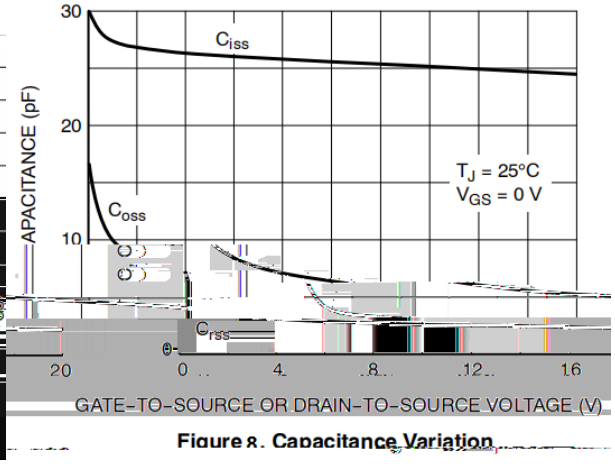


Figure 8. Capacitance Variation

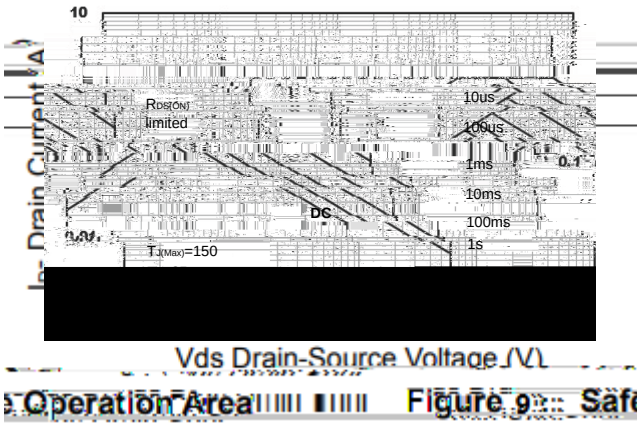


Figure 9. Safe Operation Area

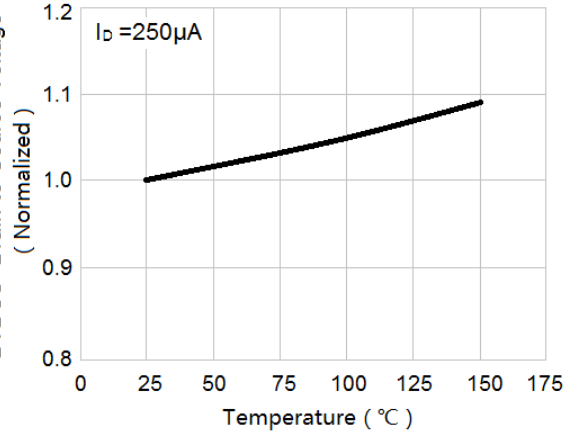


Figure 10 : Breakdown Voltage vs.Temperture

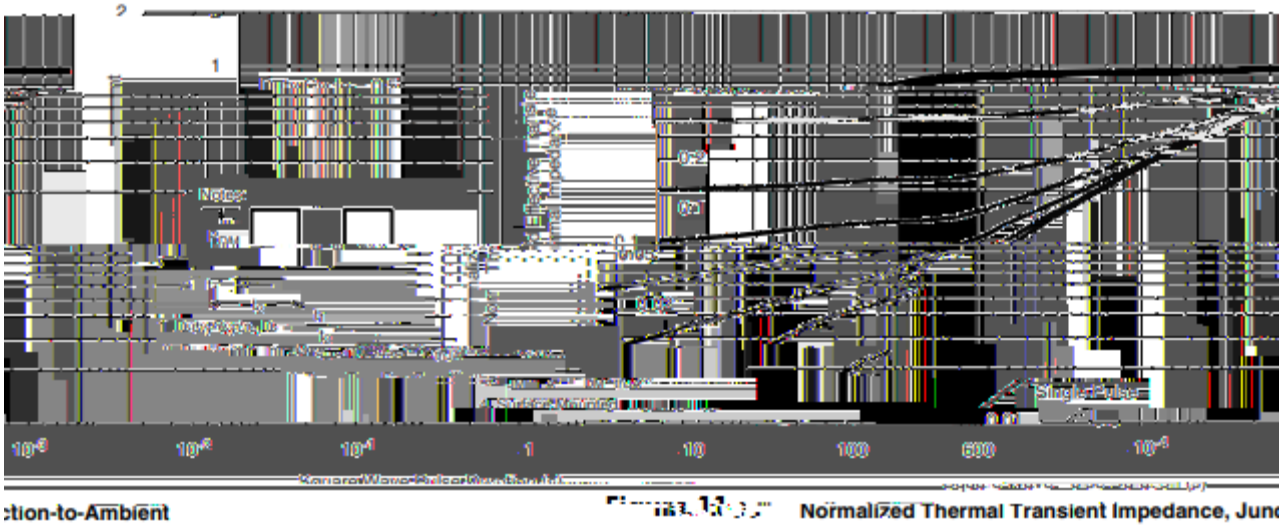
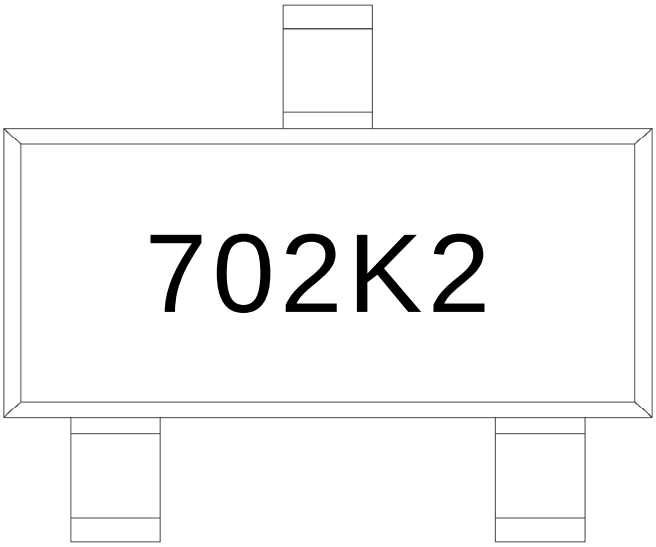


Figure 11. Normalized Thermal Transient Impedance, Junction-to-Ambient

/ Marking Instructions



702K2

Note:

702K2: Product Type Code