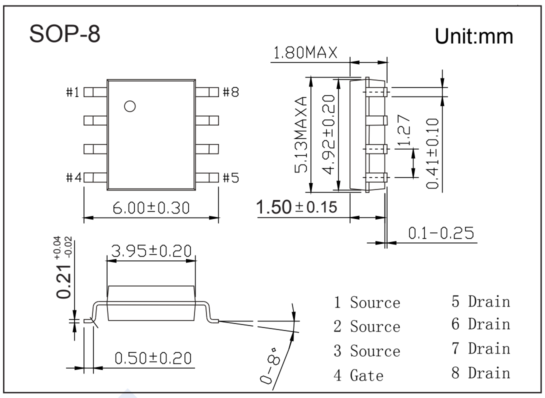
P-Channel MOSFET
KX5P04DY



■ Features

- V_{DS} (V) =-40V
- I_D =-5.3 A (V_{GS} =-10V)
- $R_{DS(ON)} <$ 80mΩ (V_{GS} =-10V)
- $R_{DS(ON)} <$ 120mΩ (V_{GS} =-4.5V)

■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DS}	-40	V
Gate-Source Voltage	V_{GS}	±20	
Continuous Drain Current	I_D	-5.3	A
Power Dissipation	P_D	2	W
Junction Temperature	T_J	150	℃
Junction Storage Temperature Range	T_{stg}	-55 to 150	

■ Electrical Characteristics Ta = 25℃

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	V_{DSS}	I_D=-250μA, V_{GS}=0V	-40			V
Zero Gate Voltage Drain Current	I_{DSS}	V_{DS}=-40V, V_{GS}=0V			-1	uA
Gate-Body leakage current	I_{GSS}	V_{DS}=0V, V_{GS}=±20V			±100	nA
Gate Threshold Voltage	$V_{GS(th)}$	V_{DS}=V_{GS} I_D=-250uA	-1		-3	V
Static Drain-Source On-Resistance	$R_{DS(On)}$	V_{GS}=-10V, I_D=-5A			80	mΩ
		V_{GS}=-4.5V, I_D=-4A			120	

■ Marking

Marking	4005

P-Channel MOSFET
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■ Typical Characterisitics

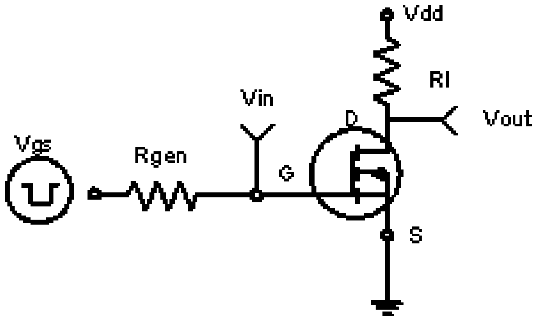

Figure 1:Switching Test Circuit

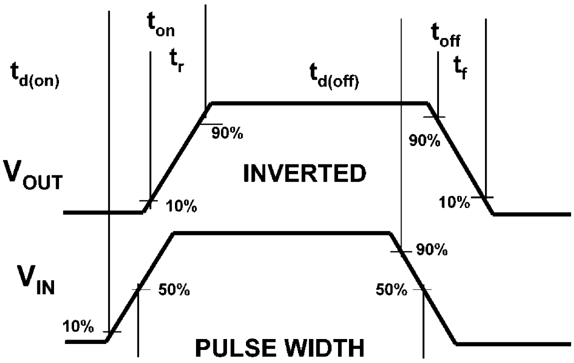

Figure 2:Switching Waveforms

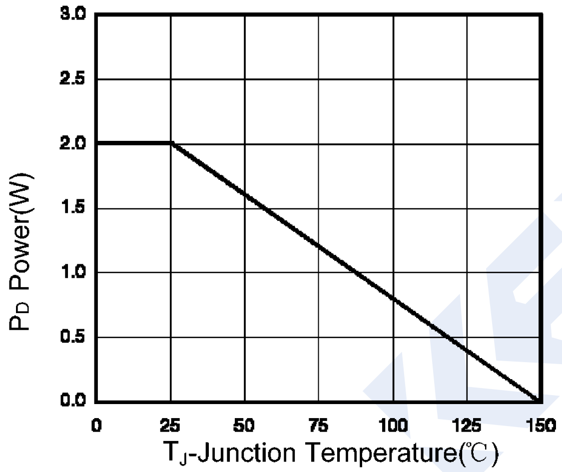

Figure 3 Power Dissipation

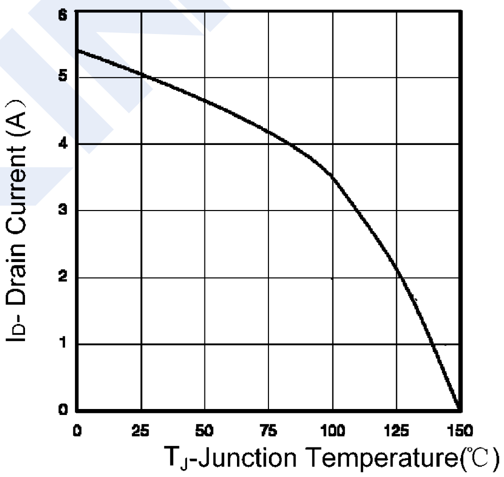

Figure 4 Drain Current

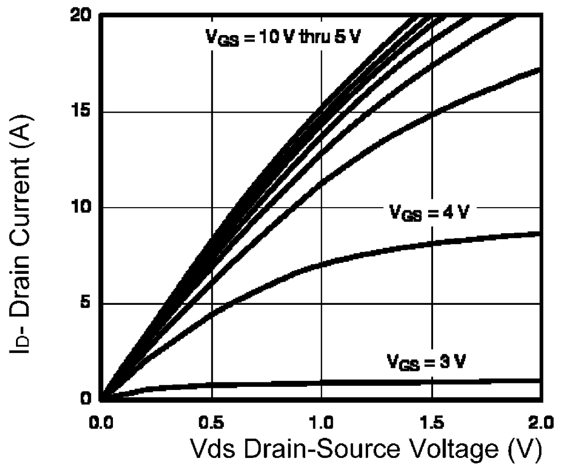

Figure 5 Output Characteristics

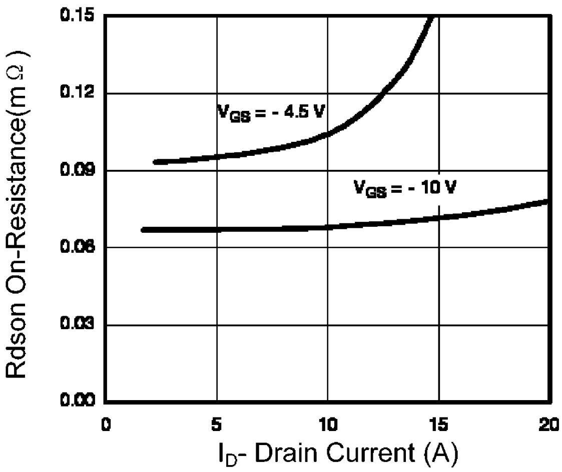

Figure 6 Drain-Source On-Resistance

P-Channel MOSFET

KX5P04DY

■ Typical Characterisitics

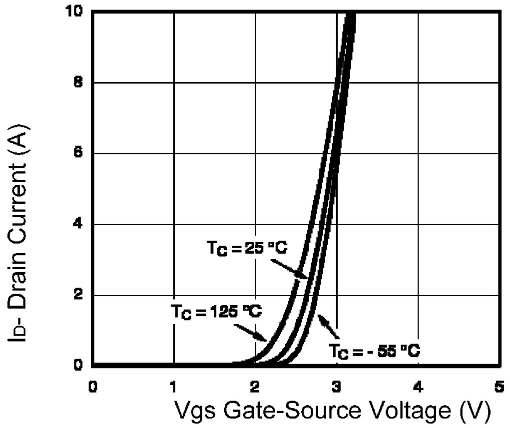

Figure 7 Transfer Characteristics

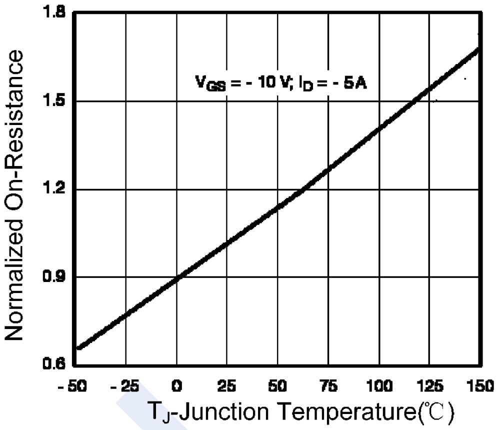

Figure 8 Drain-Source On-Resistance

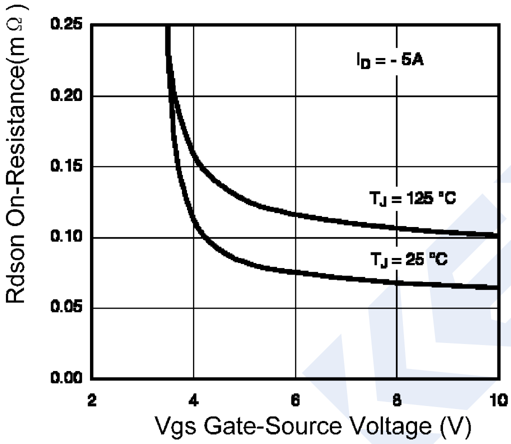

Figure 9 Rdson vs Vgs

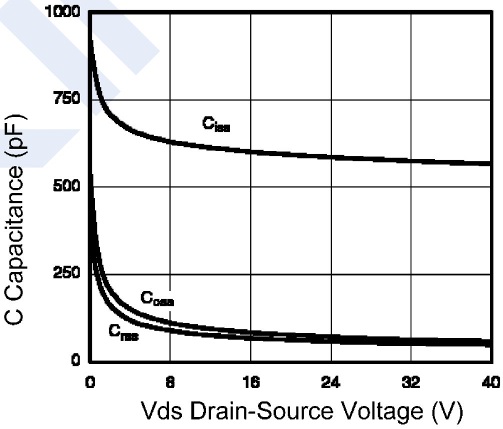

Figure 10 Capacitance vs Vds

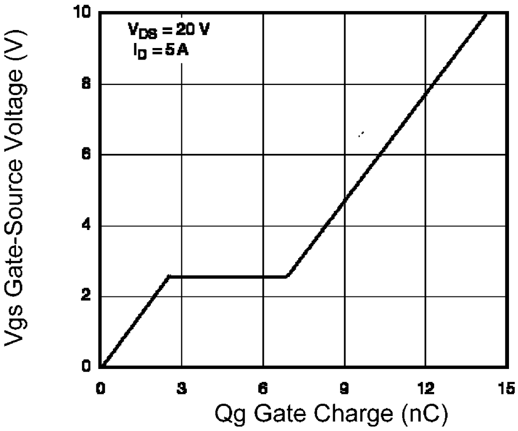

Figure 11 Gate Charge

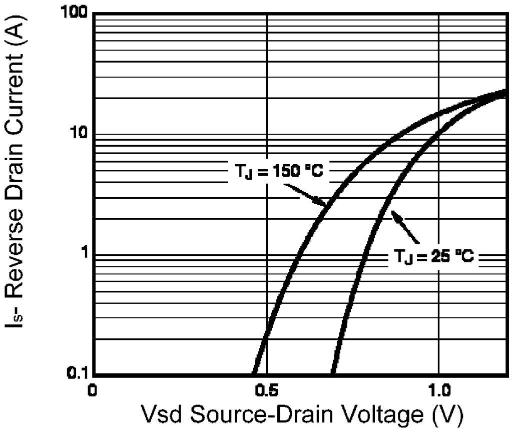

Figure 12 Source- Drain Diode Forward

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■ Typical Characterisitics

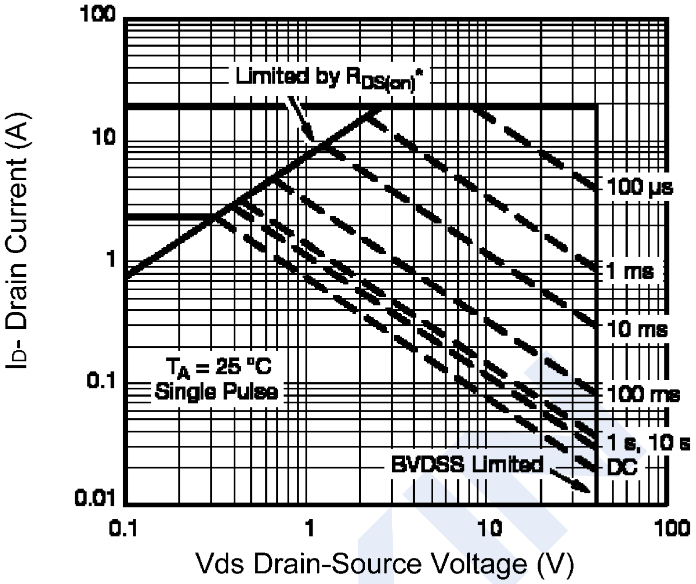

Figure 13 Safe Operation Area

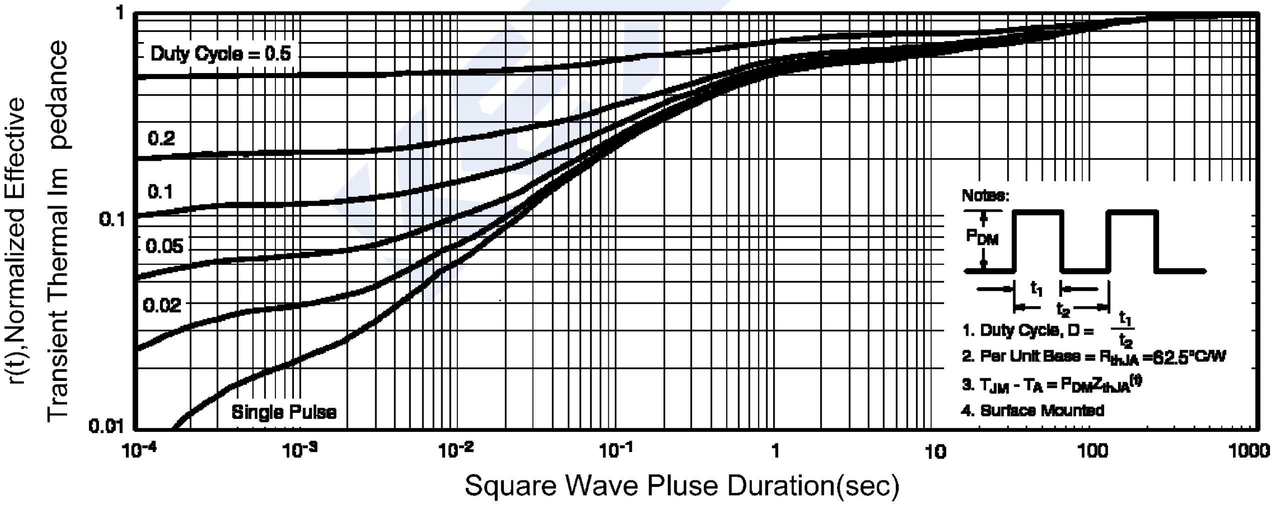

Figure 14 Normalized Maximum Transient Thermal Impedance