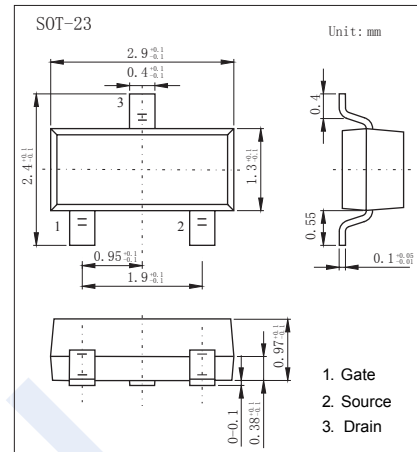
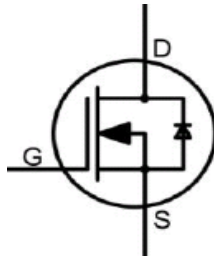


N-Channel MOSFET

DMZ6005E (KMZ6005E)

■ Features

- $V_{DS} (V) = 600V$
- $I_D = 20mA$
- $R_{DS(ON)} < 700m\Omega$ ($V_{GS} = 0V$)
- Fast Switching Speed
- RoHS Compliant
- Halogen-free available



■ Absolute Maximum Ratings $T_a = 25^\circ C$

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DS}	600	V
Drain-Gate Voltage	V_{DG}	600	
Gate-Source Voltage	V_{GS}	± 20	
Continuous Drain Current	I_D	20	mA
Pulsed Drain Current	I_{DM}	80	
Power Dissipation	P_D	500	mW
Thermal Resistance.Junction- to-Ambient	R_{thJA}	250	$^\circ C/W$
Soldering Temperature	T_L	300	$^\circ C$
Junction Temperature	T_J	150	
Storage Temperature Range	T_{stg}	-55 to 150	

N-Channel MOSFET

DMZ6005E (KMZ6005E)

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	V _{DSS}	I _D =250 μA, V _{GS} =-5V	600			V
Saturated Drain-to-Source Current	I _{DSS}	V _{GS} =0V, V _{DS} =25V	5		25	mA
Drain-to-Source Leakage Current	I _{D(OFF)}	V _{DS} =600V, V _{GS} =-5V			0.1	μA
		V _{DS} =600V, V _{GS} =-5V, T _J = 125°C			10	
Gate-Body Leakage Current	I _{GSS}	V _{DS} =0V, V _{GS} =±20V			±20	
Gate-to-Source Cut-off Voltage	V _{GS(OFF)}	V _{DS} =3V, I _D =8 μA	-3		-1.8	V
Static Drain-Source On-Resistance	R _{DS(on)}	V _{GS} =0V, I _D =3mA			700	Ω
Forward Transconductance	g _{FS}	V _{DS} =10V, I _D =5mA		15.4		mS
Input Capacitance	C _{iss}	V _{GS} =-5V, V _{DS} =25V, f=1MHz		12.3		pF
Output Capacitance	C _{oss}			2.6		
Reverse Transfer Capacitance	C _{rss}			1.8		
Total Gate Charge	Q _g	V _{GS} =-5~5V, V _{DS} =300V, I _D =7mA		1.55		nC
Gate Source Charge	Q _{gs}			0.12		
Gate Drain Charge	Q _{gd}			0.56		
Turn-On DelayTime	t _{d(on)}	V _{GS} = -5V~5V V _{DD} = 300V, I _D =7mA R _G = 20Ω		4		ns
Turn-On Rise Time	t _r			9		
Turn-Off DelayTime	t _{d(off)}			14		
Turn-Off Fall Time	t _f			84		
Diode Forward Voltage	V _{SD}	I _S =3mA, V _{GS} =-10V			1.2	V

Note.: Pulse width≤380μs; duty cycles≤2%.

■ Marking

Marking	605E
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N-Channel MOSFET

DMZ6005E (KMZ6005E)

■ Typical Characteristics

Figure 1. Maximum Power Dissipation vs. Case Temperature

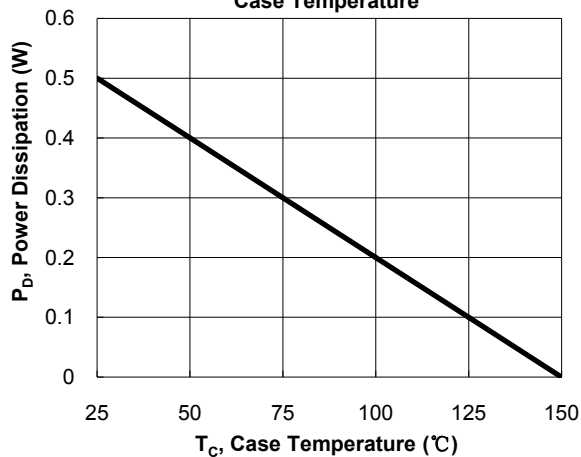


Figure 2. Maximum Continuous Drain Current vs Case Temperature

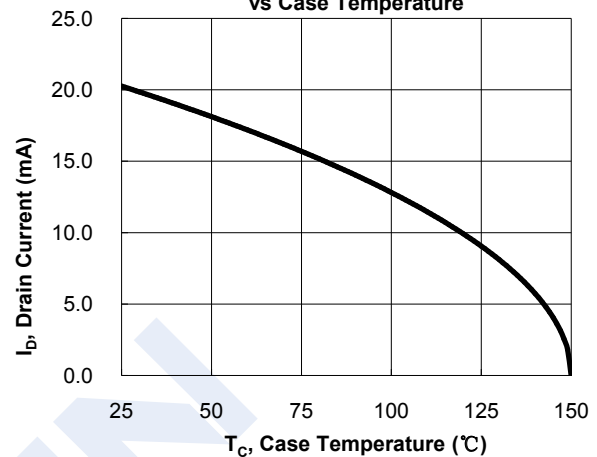


Figure 3. Typical Output Characteristics

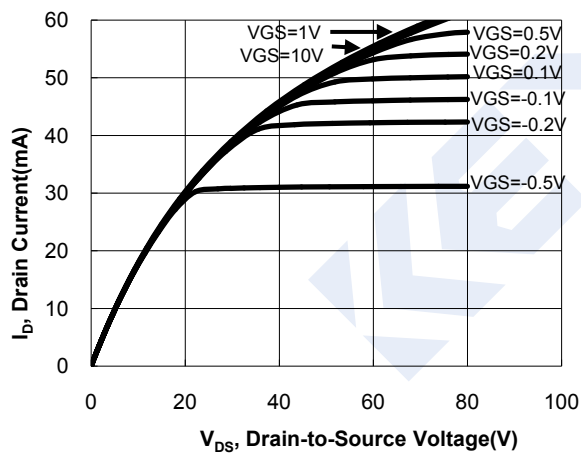


Figure 4. Typical Transfer Characteristics

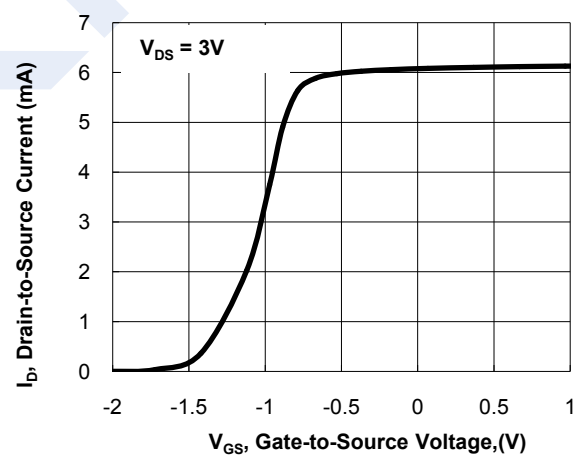


Figure 5. Typical Capacitance vs. Drain-to-Source Voltage

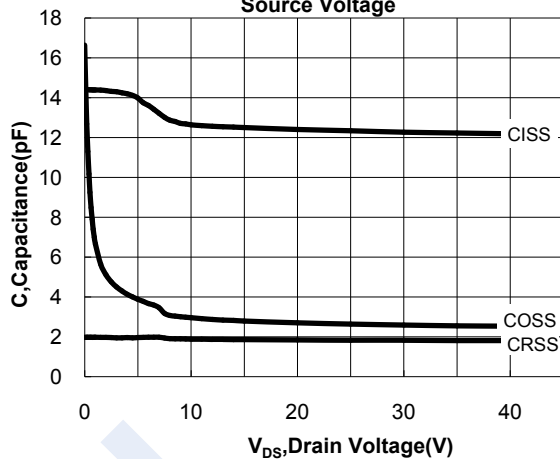


Figure 6. Typical Gate Charge vs. Gate-to-Source Voltage

