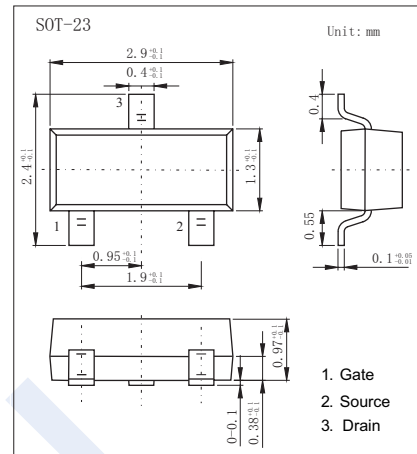
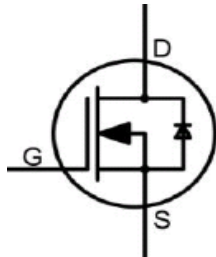


## N-Channel MOSFET

### DMZ6005E (KMZ6005E)

#### ■ Features

- $V_{DS} (V) = 600V$
- $I_D = 20mA$
- $R_{DS(ON)} < 700 \Omega (V_{GS} = 0 V)$
- 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	$V_{GS}$	$\pm 20$	
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 <sub>DSS</sub>	I <sub>D</sub> =250 μA, V <sub>GS</sub> =-5V	600			V
Saturated Drain-to-Source Current	I <sub>DSS</sub>	V <sub>GS</sub> =0V, V <sub>DS</sub> =25V	5		25	mA
Drain-to-Source Leakage Current	I <sub>D(OFF)</sub>	V <sub>DS</sub> =600V, V <sub>GS</sub> =-5V			0.1	μA
		V <sub>DS</sub> =600V, V <sub>GS</sub> =-5V, T <sub>J</sub> = 125°C			10	
Gate-Body Leakage Current	I <sub>GSS</sub>	V <sub>DS</sub> =0V, V <sub>GS</sub> =±20V			±100	nA
Gate-to-Source Cut-off Voltage	V <sub>GS(OFF)</sub>	V <sub>DS</sub> =3V, I <sub>D</sub> =8 μA	-3		-1.8	V
Static Drain-Source On-Resistance	R <sub>DS(on)</sub>	V <sub>GS</sub> =0V, I <sub>D</sub> =3mA			700	Ω
Forward Transconductance	g <sub>FS</sub>	V <sub>DS</sub> =10V, I <sub>D</sub> =5mA		15.4		mS
Input Capacitance	C <sub>iss</sub>	V <sub>GS</sub> =-5V, V <sub>DS</sub> =25V, f=1MHz		12.3		pF
Output Capacitance	C <sub>oss</sub>			2.6		
Reverse Transfer Capacitance	C <sub>rss</sub>			1.8		
Total Gate Charge	Q <sub>g</sub>	V <sub>GS</sub> =-5~5V, V <sub>DS</sub> =300V, I <sub>D</sub> =7mA		1.55		nC
Gate Source Charge	Q <sub>gs</sub>			0.12		
Gate Drain Charge	Q <sub>gd</sub>			0.56		
Turn-On DelayTime	t <sub>d(on)</sub>	V <sub>GS</sub> = -5V~5V V <sub>DD</sub> = 300V, I <sub>D</sub> =7mA R <sub>G</sub> = 20Ω		4		ns
Turn-On Rise Time	t <sub>r</sub>			9		
Turn-Off DelayTime	t <sub>d(off)</sub>			14		
Turn-Off Fall Time	t <sub>f</sub>			84		
Diode Forward Voltage	V <sub>SD</sub>	I <sub>S</sub> =3mA, V <sub>GS</sub> =-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

