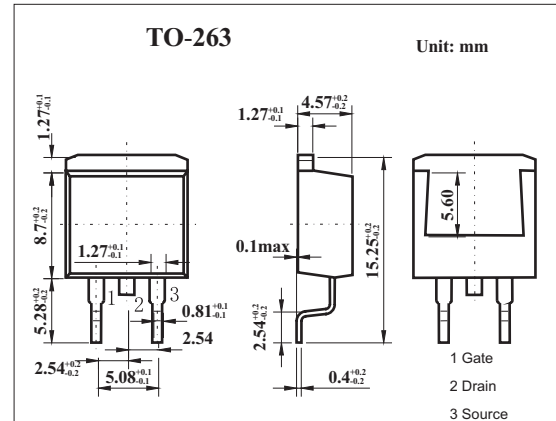
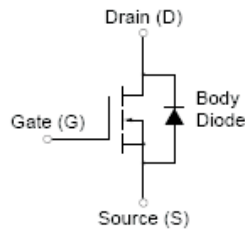


MOS Field Effect Transistor

2SK3116

■ Features

- Low gate charge
 $Q_G = 26 \text{ nC TYP. (} I_D = 7.5 \text{ A, } V_{DD} = 450 \text{ V, } V_{GS} = 10 \text{ V)}$
- Gate voltage rating $\pm 30 \text{ V}$
- Low on-state resistance
 $R_{DS(on)} = 1.2 \ \Omega \text{ MAX. (} V_{GS} = 10 \text{ V, } I_D = 3.75 \text{ A)}$
- Avalanche capability ratings



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

Parameter	Symbol	Rating	Unit
Drain to source voltage	V_{DS}	600	V
Gate to source voltage	V_{GS}	± 30	V
Drain current	I_D	± 7.5	A
	I_{DP}^*	± 30	A
Power dissipation	P_D	$T_A=25^\circ\text{C}$	1.5
		$T_C=25^\circ\text{C}$	70
Channel temperature	T_{ch}	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to +150	$^\circ\text{C}$

* $PW \leq 10 \ \mu\text{s, Duty Cycle} \leq 1\%$

■ Electrical Characteristics $T_a = 25^\circ\text{C}$

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Drain cut-off current	I_{DSS}	$V_{DS}=600\text{V, } V_{GS}=0$			100	μA
Gate leakage current	I_{GSS}	$V_{GS}=\pm 30\text{V, } V_{DS}=0$			± 100	μA
Gate to source cut off voltage	$V_{GS(off)}$	$V_{DS}=10\text{V, } I_D=1\text{mA}$	2.5		3.5	V
Forward transfer admittance	$ Y_{fs} $	$V_{DS}=10\text{V, } I_D=3.75\text{A}$	2.0			S
Drain to source on-state resistance	$R_{DS(on)}$	$V_{GS}=10\text{V, } I_D=3.75\text{A}$		0.9	1.2	Ω
Input capacitance	C_{iss}	$V_{DS}=10\text{V, } V_{GS}=0, f=1\text{MHz}$		1100		pF
Output capacitance	C_{oss}		200			pF
Reverse transfer capacitance	C_{rss}		20			pF
Turn-on delay time	t_{on}	$I_D=3.75\text{A, } V_{GS(on)}=10\text{V, } V_{DD}=150\text{V, } R_G=10\ \Omega, R_L=50\ \Omega$		18		ns
Rise time	t_r		15			ns
Turn-off delay time	t_{off}		50			ns
Fall time	t_f		15			ns