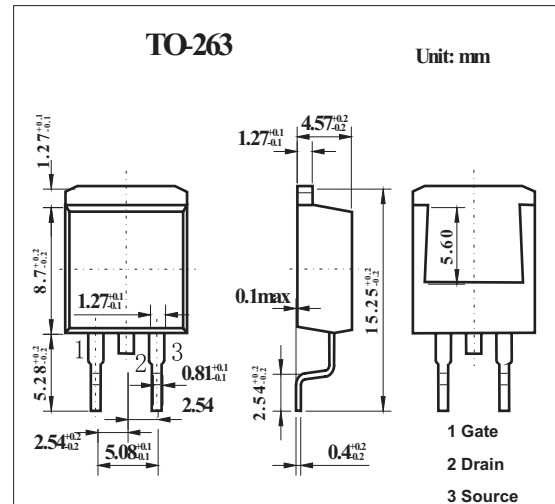


## MOS Field Effect Transistors

## 2SK2484

## ■ Features

- Low On-state Resistance:  $R_{DS(on)}=2.8\ \Omega$  max. ( $V_{GS}=10V, I_D=3.0A$ )
- Low Ciss Ciss=1200pF TYP
- High Avalanche Capability Ratings

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

Parameter	Symbol	Rating	Unit
Drain to Source Voltage	$V_{DSS}$	900	V
Gate to Source Voltage	$V_{GSS}$	$\pm 30$	V
Drain Current(DC)	$I_{D(DS)}$	$\pm 5$	A
Drain Current(pulse) *1	$I_{D(pulse)}$	$\pm 10$	A
Total Power Dissipation $T_a = 25^\circ\text{C}$	$P_T$	1.5	W
Total Power Dissipation $T_c = 25^\circ\text{C}$		75	
Channel Temperature	$T_{ch}$	150	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-55 to +150	$^\circ\text{C}$
Single Avalanche Current *2	$I_{AS}$	5	A
Single Avalanche Energy *2	$E_{AS}$	75	mJ

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

\*2. Starting  $T_{ch}=25^\circ\text{C}$ ,  $R_G=25\ \Omega$ ,  $V_{GS}=20V \rightarrow 0$

## 2SK2484

## ■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Drain to Source On-state Resistance	$R_{DS(on)}$	$V_{GS} = 10\text{ V}, I_D = 3.0\text{ A}$		2.2	2.8	$\Omega$
Gate 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} $	$V_{DS} = 20\text{ V}, I_D = 3.0\text{ A}$	2.0			S
Drain Cut-off Current	$I_{DSS}$	$V_{DS} = V_{DSS}, V_{GS} = 0$			100	$\mu\text{A}$
Gate Leakage Current	$I_{GSS}$	$V_{GS} = \pm 30\text{ V}, V_{DS} = 0$			$\pm 100$	nA
Input Capacitance	$C_{iss}$	$V_{DS} = 10\text{ V}$		1200		pF
Output Capacitance	$C_{oss}$	$V_{GS} = 0$		170		pF
Feedback Capacitance	$C_{rss}$	$f = 1\text{ MHz}$		30		pF
Turn-on Delay Time	$t_{d(on)}$	$I_D = 3.0\text{ A}$		20		ns
Rise Time	$t_r$	$V_{GS} = 10\text{ V}$		10		ns
Turn-off Delay Time	$t_{d(off)}$	$V_{DD} = 150\text{ V}$		70		ns
Fall Time	$t_f$	$R_G = 10\ \Omega$		15		ns
Total Gate Charge	$Q_g$	$I_D = 5.0\text{ A}$		40		nC
Gate-Source Charge	$Q_{gs}$	$V_{DD} = 450\text{ V}$		7		
Gate-Drain Charge	$Q_{gd}$	$V_{GS} = 10\text{ V}$		17		
Diode Forward Voltage	$V_{F(S-D)}$	$I_F = 5.0\text{ A}, V_{GS} = 0$		1.0		V
Reverse Recovery Time	$t_{rr}$	$I_F = 5.0\text{ A}, V_{GS} = 0$		670		ns
Reverse Recovery Charge	$Q_{rr}$	$di/dt = 50\text{ A}/\mu\text{s}$		3.5		$\mu\text{C}$