

- 1.Scope** This specifies Fuji Power MOSFET 2SK4005-01MR
- 2.Construction** N-Channel enhancement mode power MOSFET
- 3.Applications** for Switching
- 4.Outview** TO-220F Outview See to 8/18 page

5.Absolute Maximum Ratings at Tc=25°C (unless otherwise specified)

Description	Symbol	Characteristics	Unit	Remarks
Drain-Source Voltage	V_{DS}	900	V	
	V_{DSX}	900	V	$V_{GS}=-30V$
Continuous Drain Current	I_D	6.0	A	
Pulsed Drain Current	I_{DP}	± 24.0	A	
Gate-Source Voltage	V_{GS}	± 30	V	
Repetitive and Non-repetitive Maximum Avalanche Current	I_{AR}	6.0	A	Note *1
Non-Repetitive Maximum Avalanche Energy	E_{AS}	487	mJ	Note *2
Repetitive Maximum Avalanche Energy	E_{AR}	7.0	mJ	Note *3
Maximum Drain-Source dV/dt	dV_{DS}/dt	40	kV/ μ s	$V_{DS} \leq 900V$
Peak Diode Recovery dV/dt	dV/dt	5	kV/ μ s	Note *4
Maximum Power Dissipation	P_D	70	W	$T_c=25^\circ C$
		2.16		$T_a=25^\circ C$
Operating and Storage Temperature range	T_{ch}	150	$^\circ C$	
	T_{stg}	-55 to +150	$^\circ C$	
Isolation Voltage	V_{ISO}	2	kVrms	t=60sec f=60Hz

6.Electrical Characteristics at Tc=25°C (unless otherwise specified)

Static Ratings

Description	Symbol	Conditions	min.	typ.	max.	Unit
Drain-Source Breakdown Voltage	BV_{DSS}	$I_D=250\mu A$ $V_{GS}=0V$	900	-	-	V
Gate Threshold Voltage	$V_{GS(th)}$	$I_D=250\mu A$ $V_{DS}=V_{GS}$	2.5	-	3.5	V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS}=900V$ $V_{GS}=0V$ $T_{ch}=25^\circ C$	-	-	25	μA
		$V_{DS}=720V$ $V_{GS}=0V$ $T_{ch}=125^\circ C$	-	-	250	
Gate-Source Leakage Current	I_{GSS}	$V_{GS} = \pm 30V$ $V_{DS}=0V$	-	-	100	nA
Drain-Source On-State Resistance	$R_{DS(on)}$	$I_D=3A$ $V_{GS}=10V$	-	1.92	2.50	Ω