

2SK3532-01MR (900V/2.5Ω/6A)

1) Package

TO-220F

2) Absolute Maximum Ratings (Tc=25 unless otherwise specified)

Items	Symbols	Ratings	Units
Drain-Source Voltage	V_{DS}	900	V
Continuous Drain Current	I_D	±6	A
Pulsed Drain Current	$I_{D(pulse)}$	±24	A
Gate-Source Voltage	V_{GS}	±30	V
Repetitive and Non-Repetitive Maximum Avalanche Current	I_{AR}	6	A
Non-Repetitive Maximum Avalanche Energy	E_{AS}	244.0	mJ
Maximum Drain-Source dV/dt	dV _{DS} /dt	20	kV/us
Peak Diode recovery dV/dt	dV/dt	5	kV/us
Maximum Power Dissipation	P_D @Tc=25	70	W
	P_D @Ta=25	2.16	W
Operating and Storage Temperature range	T_{ch}	150	
	T_{stg}	-55 ~ +150	

*1

*2

3)Electrical Characteristics (Tch=25 unless otherwise specified)

Items	Symbols	Test Conditions	min.	typ.	max.	Units
Drain-Source Breakdown Voltage	BV_{DSS}	$I_D=250\mu A$ $V_{GS}=0V$	900	---	---	V
Gate Threshold Voltage	$V_{GS(th)}$	$I_D=250\mu A$ $V_{DS}=V_{GS}$	3.0	---	5.0	V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS}=900V$ $T_{ch}=25$	---	---	50	μA
		$V_{GS}=0V$ $T_{ch}=125$	---	---	500	μA
Gate-Source Leakage Current	I_{GSS}	$V_{GS}=\pm 30V$ $V_{DS}=0V$	---	---	100	nA
Drain-Source On-State Resistance	$R_{DS(on)}$	$I_D=3A$ $V_{GS}=10V$	---	---	2.5	Ω
Input Capacitance	C_{iss}	$V_{DS}=25V$	---	830	---	pF
Output Capacitance	C_{oss}	$V_{GS}=0V$	---	100	---	
Reverse Transfer Capacitance	C_{rss}	f=1MHz	---	5	---	
Total Gate Charge	Q_g	$V_{CC}=450V$	---	25	---	nC
Gate to Source Charge	Q_{gs}	$I_D=6A$	---	7.5	---	
Gate to Drain (Miller) Charge	Q_{gd}	$V_{GS}=10V$	---	7	---	
Avalanche Capability	I_{AV}	L=12.4mH Tch=25	6	---	---	A
Diode Forward On-Voltage	V_{SD}	$I_F=6A, V_{GS}=0V, Tch=25$	---	1.0	1.5	V

4) Thermal Characteristics

Items	Symbols	Test Conditions	min.	typ.	max.	Units
Channel to Case	$R_{th(ch-c)}$				1.79	/W
Channel to Ambient	$R_{th(ch-a)}$				58.0	/W

*1 L=12.4mH, Vcc=90V

*2 $I_F \leq I_D$, -di/dt=50A/μs, Vcc≤BV_{DSS}, Tch≤150°C

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REVISIONS

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