

isc N-Channel MOSFET Transistor
2SK3568
• FEATURES

- Drain-source on-resistance:
 $R_{ds(on)} \leq 0.52\Omega @ 10V$
- Low leakage current:
 $I_{dss} < 100 \mu A @ V_{DS} = 500 V$
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

• APPLICATIONS

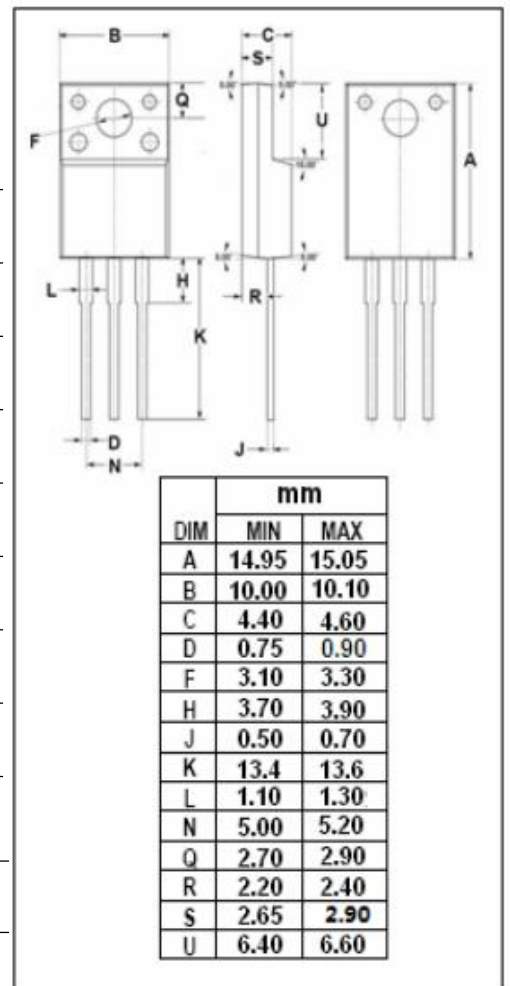
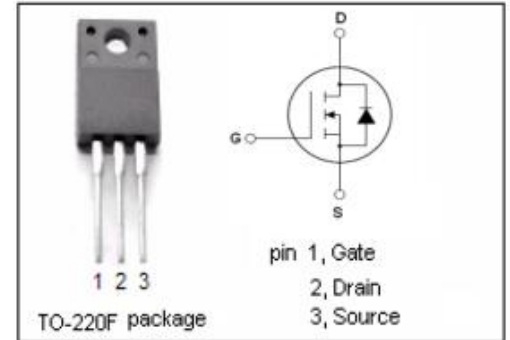
- Switching Regulator Applications

• ABSOLUTE MAXIMUM RATINGS ($T_a = 25^\circ C$)

SYMBOL	PARAMETER	VALUE	UNIT
V_{DS}	Drain-Source Voltage	500	V
V_{GS}	Gate-Source Voltage	± 30	V
I_D	Drain Current-Continuous	12	A
I_{DM}	Drain Current-Single Pulsed	48	A
P_D	Total Dissipation @ $T_c = 25^\circ C$	40	W
T_j	Max. Operating Junction Temperature	150	$^\circ C$
T_{stg}	Storage Temperature	-55~150	$^\circ C$

• THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th(ch-c)}$	Channel-to-case thermal resistance	3.125	$^\circ C/W$



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ELECTRICAL CHARACTERISTICS

 $T_C=25^{\circ}\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
BV_{DSS}	Drain-Source Breakdown Voltage	$V_{GS}=0V; I_D=10mA$	500			V
$V_{GS(th)}$	Gate Threshold Voltage	$V_{DS}=10V; I_D=1mA$	2		4	V
$R_{DS(on)}$	Drain-Source On-Resistance	$V_{GS}=10V; I_D=6A$			0.52	Ω
I_{GSS}	Gate-Source Leakage Current	$V_{GS}=\pm 25V; V_{DS}=0V$			± 10	μA
I_{DSS}	Drain-Source Leakage Current	$V_{DS}=500V; V_{GS}=0V$			100	μA
V_{SD}	Diode forward voltage	$I_S=12A, V_{GS}=0V$			1.7	V

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