

# isc N-Channel MOSFET Transistor

## 2SK2943

### • FEATURES

- With TO-220F packaging
- High speed switching
- Easy to use
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

### • APPLICATIONS

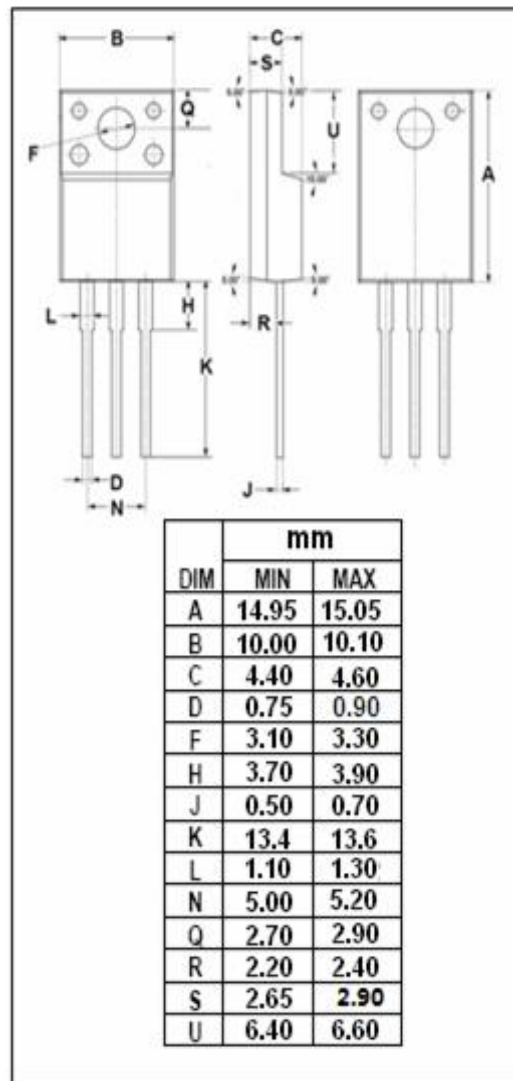
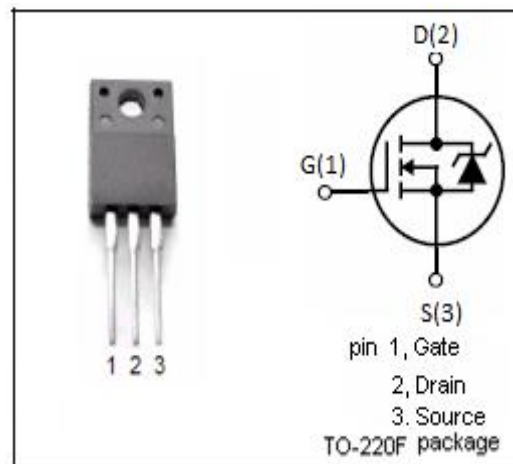
- Power supply
- Switching applications

### • ABSOLUTE MAXIMUM RATINGS( $T_a=25^{\circ}\text{C}$ )

SYMBOL	PARAMETER	VALUE	UNIT
$V_{DSS}$	Drain-Source Voltage	900	V
$V_{GSS}$	Gate-Source Voltage	$\pm 30$	V
$I_D$	Drain Current-Continuous	3	A
$I_{DM}$	Drain Current-Single Pulsed	12	A
$P_D$	Total Dissipation	30	W
$T_j$	Operating Junction Temperature	-55~150	$^{\circ}\text{C}$
$T_{stg}$	Storage Temperature	-55~150	$^{\circ}\text{C}$

### • THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
Rth(ch-c)	Channel-to-case thermal resistance	2.6	$^{\circ}\text{C}/\text{W}$
Rth(ch-a)	Channel-to-ambient thermal resistance	62.5	$^{\circ}\text{C}/\text{W}$



**isc N-Channel MOSFET Transistor****2SK2943****ELECTRICAL CHARACTERISTICS** $T_C=25^{\circ}\text{C}$  unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
$BV_{DSS}$	Drain-Source Breakdown Voltage	$V_{GS}=0V; I_D=10\text{mA}$	900			V
$V_{GS(th)}$	Gate Threshold Voltage	$V_{DS}=\pm 30V; I_D=1\text{mA}$	2		4	V
$R_{DS(on)}$	Drain-Source On-Resistance	$V_{GS}=10V; I_D=1.5A$		4.0	5.0	$\Omega$
$I_{GSS}$	Gate-Source Leakage Current	$V_{GS}=\pm 30V; V_{DS}=0V$			$\pm 0.1$	$\mu\text{A}$
$I_{DSS}$	Drain-Source Leakage Current	$V_{DS}=900V; V_{GS}=0V$			100	$\mu\text{A}$
$V_{SDF}$	Diode forward voltage	$I_{SD}=3A, V_{GS}=0V$			1.5	V

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