

isc N-Channel MOSFET Transistor
STD4NK60ZT4
• FEATURES

- Drain Source Voltage-
: $V_{DSS} = 600V(\text{Min})$
- Static drain-source on-resistance
: $R_{DS(on)} \leq 2\Omega @ V_{GS}=10V$
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

• APPLICATIONS

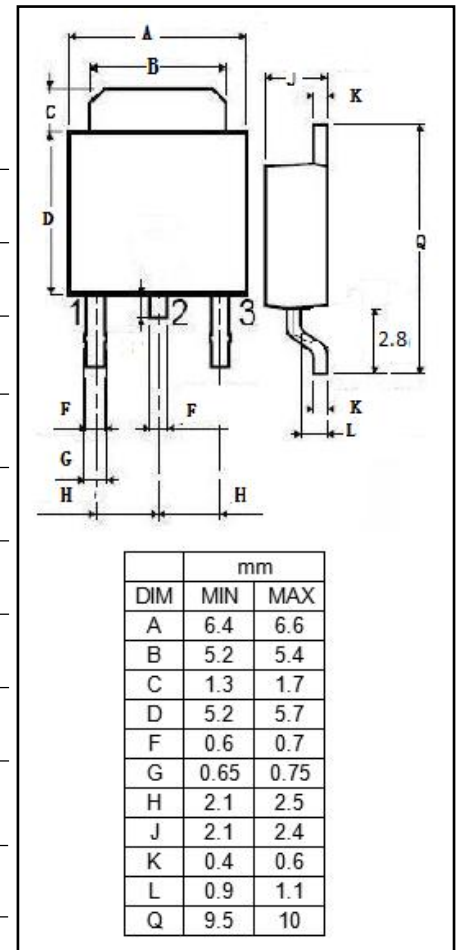
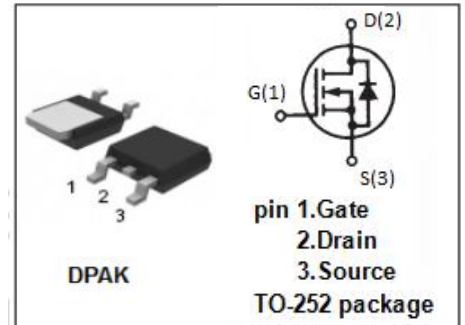
- Switching applications

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage	600	V
V_{GS}	Gate-Source Voltage	± 30	V
I_D	Drain Current-Continuous	4	A
I_{DM}	Drain Current-Single Pulsed	16	A
P_D	Total Dissipation @ $T_c=25^\circ\text{C}$	70	W
T_j	Max. Operating Junction Temperature	-55~150	$^\circ\text{C}$
T_{stg}	Storage Temperature	-55~150	$^\circ\text{C}$

• THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th(j-c)}$	Channel-to-case thermal resistance	1.79	$^\circ\text{C/W}$



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ELECTRICAL CHARACTERISTICS

T_c=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
BV _{DSS}	Drain-Source Breakdown Voltage	V _{GS} =0V; I _D =1mA	600			V
V _{GS(th)}	Gate Threshold Voltage	V _{DS} =V _{GS} ; I _D =50 μA	3		4.5	V
R _{DS(on)}	Drain-Source On-Resistance	V _{GS} =10V; I _D =2A			2	Ω
I _{GSS}	Gate-Source Leakage Current	V _{GS} = ±20V			±10	μA
I _{DSS}	Drain-Source Leakage Current	V _{DS} =600V; V _{GS} = 0V V _{DS} =600V; V _{GS} = 0V; TC=125°C			1 50	μA
V _{SD}	Diode forward voltage	I _{SD} = 4A, V _{GS} = 0V			1.6	V

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