

isc N-Channel MOSFET Transistor

TK290P65Y

• FEATURES

- Low drain-source on-resistance:
 $R_{DS(ON)} = 0.29\Omega$
- Enhancement mode:
 $V_{th} = 3 \text{ to } 4\text{V}$ ($V_{DS} = 10\text{V}$, $I_D = 0.45\text{mA}$)
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

• DESCRIPTION

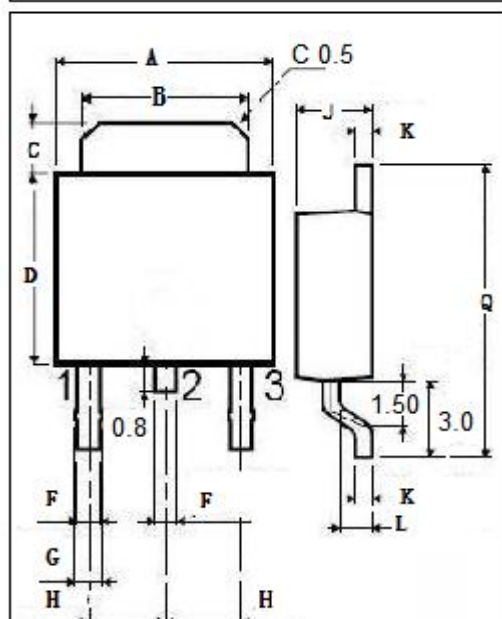
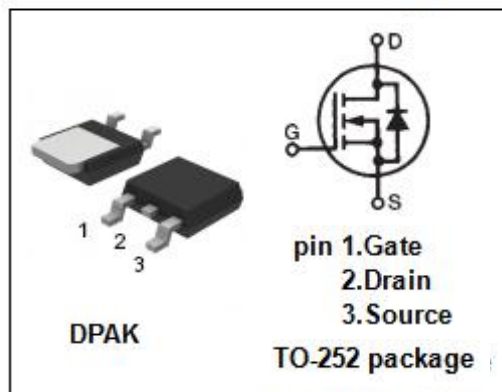
- Switching Voltage Regulators

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{DS}	Drain-Source Voltage	650	V
V_{GS}	Gate-Source Voltage	± 30	V
I_D	Drain Current-Continuous	11.5	A
I_{DM}	Drain Current-Single Pulsed	46	A
P_D	Total Dissipation @ $T_c = 25^\circ\text{C}$	100	W
T_j	Max. Operating Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature	-55~150	$^\circ\text{C}$

• THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th(ch-c)}$	Channel-to-case thermal resistance	1.25	$^\circ\text{C/W}$



DIM	mm	
	MIN	MAX
A	6.40	6.60
B	5.20	5.40
C	1.15	1.35
D	5.70	6.10
F	0.65	
G	0.75	
H	2.10	2.50
J	2.10	2.40
K	0.40	0.60
L	0.90	1.10
Q	9.90	10.1

isc N-Channel MOSFET Transistor**TK290P65Y****ELECTRICAL CHARACTERISTICS** $T_C=25^{\circ}\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
BV_{DS}	Drain-Source Breakdown Voltage	$V_{GS}=0V; I_D=10mA$	650			V
$V_{GS(th)}$	Gate Threshold Voltage	$V_{DS}=10V; I_D=0.45mA$	3		4	V
$R_{DS(on)}$	Drain-Source On-Resistance	$V_{GS}=10V; I_D=5.8A$			290	$m\Omega$
I_{GSS}	Gate-Source Leakage Current	$V_{GS}=\pm 30V; V_{DS}=0V$			± 1	μA
I_{DSS}	Drain-Source Leakage Current	$V_{DS}=650V; V_{GS}=0V$			10	μA
V_{SDF}	Diode forward voltage	$I_{DR}=11.5A, V_{GS}=0V$			1.7	V

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