

## isc N-Channel MOSFET Transistor

TK16G60W

## • FEATURES

- Low drain-source on-resistance:  
 $R_{DS(on)} \leq 0.19\Omega$ .
- Enhancement mode:  
 $V_{th} = 2.7$  to  $3.7V$  ( $V_{DS} = 10V$ ,  $I_D = 0.79mA$ )
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

## • DESCRIPTION

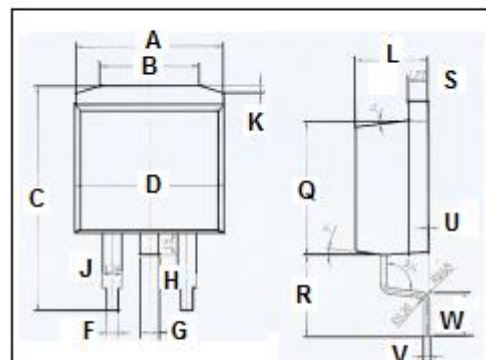
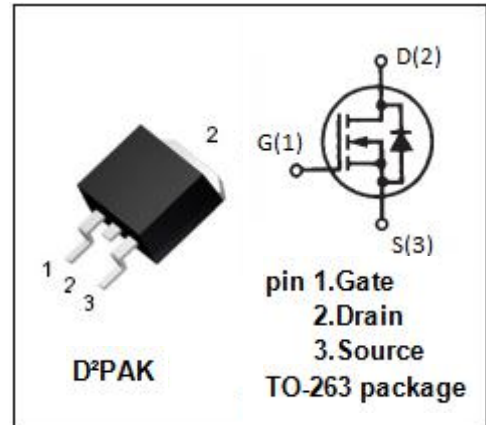
- Switching Voltage Regulators

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

SYMBOL	PARAMETER	VALUE	UNIT
$V_{DS}$	Drain-Source Voltage	600	V
$V_{GS}$	Gate-Source Voltage	$\pm 30$	V
$I_D$	Drain Current-Continuous	15.8	A
$I_{DM}$	Drain Current-Single Pulsed	63.2	A
$P_D$	Total Dissipation @ $T_c = 25^\circ C$	130	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	0.962	$^\circ C/W$



DIM	mm	
	MIN	MAX
A	10	
B	6.6	6.8
C	15.23	15.25
D	10.15	10.17
F	0.76	0.78
G	1.26	1.28
H	1.4	1.6
J	1.33	1.35
K	0.4	0.6
L	4.6	4.8
Q	8.69	8.71
R	5.28	5.30
S	1.26	1.28
U	0.0	0.2
V	0.37	0.39
W	2.80	2.82

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## ELECTRICAL CHARACTERISTICS

T<sub>c</sub>=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
BV <sub>DSS</sub>	Drain-Source Breakdown Voltage	V <sub>GS</sub> =0V; I <sub>D</sub> =10mA	600			V
V <sub>GS(th)</sub>	Gate Threshold Voltage	V <sub>DS</sub> =10V; I <sub>D</sub> =0.79mA	2.7		3.7	V
R <sub>DS(on)</sub>	Drain-Source On-Resistance	V <sub>GS</sub> =10V; I <sub>D</sub> =7.9A			0.19	Ω
I <sub>GSS</sub>	Gate-Source Leakage Current	V <sub>GS</sub> = ±30V; V <sub>DS</sub> = 0V			±1	μA
I <sub>DSS</sub>	Drain-Source Leakage Current	V <sub>DS</sub> =600V; V <sub>GS</sub> = 0V			10	μA
V <sub>SDF</sub>	Diode forward voltage	I <sub>DR</sub> =15.8A, V <sub>GS</sub> = 0 V			1.7	V

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