

isc N-Channel MOSFET Transistor

2SK3689-01

FEATURES

- Drain Current : $I_D = 16A @ T_C = 25^\circ C$
- Drain Source Voltage
: $V_{DSS} = 600V(\text{Min})$
- Static Drain-Source On-Resistance
: $R_{DS(on)} = 0.57 \Omega (\text{Max}) @ V_{GS} = 10V$
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

DESCRIPTION

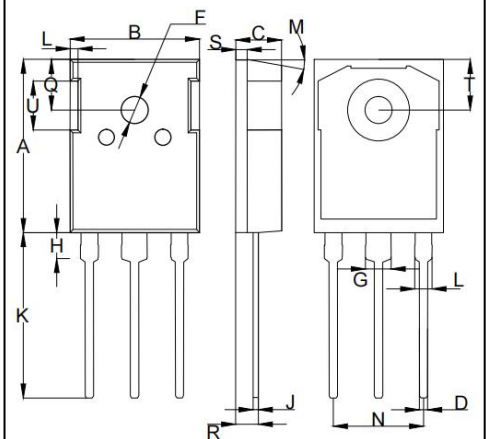
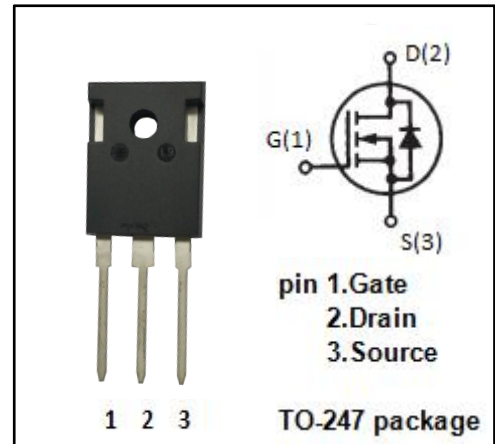
- motor drive, DC-DC converter, power switch and solenoid drive.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage	600	V
V_{GS}	Gate-Source Voltage-Continuous	± 30	V
I_D	Drain Current-Continuous	16	A
I_{DM}	Drain Current-Single Pluse	64	A
P_D	Total Dissipation @ $T_C = 25^\circ C$	235	W
T_J	Max. Operating Junction Temperature	-55~150	$^\circ C$
T_{stg}	Storage Temperature	-55~150	$^\circ C$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th j-c}$	Thermal Resistance, Junction to Case	0.532	$^\circ C/W$



DIM	mm	
	MIN	MAX
A	19.80	21.50
B	15.40	15.90
C	4.70	5.30
D	0.90	1.26
F	3.50	3.90
G	2.70	3.30
H	3.90	4.10
J	0.500	0.700
K	19.50	20.50
L	2.15	2.35
M	0.30	0.50
N	10.80	11.00
Q	6.00	6.30
R	2.90	3.30
S	1.80	2.20
T	6.00	6.30
U	4.90	5.10

isc N-Channel MOSFET Transistor**2SK3689-01****ELECTRICAL CHARACTERISTICS****T_C=25°C unless otherwise specified**

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
V _{(BR)DSS}	Drain-Source Breakdown Voltage	V _{GS} = 0; I _D = 0.25mA	600	--	V
V _{GS(th)}	Gate Threshold Voltage	V _{DS} = 10V; I _D = 0.25mA	3.0	5.0	V
R _{DS(on)}	Drain-Source On-Resistance	V _{GS} = 10V; I _D = 8.0A	--	0.57	Ω
I _{GSS}	Gate-Body Leakage Current	V _{GS} = ±30V; V _{DS} = 0	--	±0.1	uA
I _{DSS}	Zero Gate Voltage Drain Current	V _{DS} = 600V; V _{GS} = 0	--	25	uA
V _{SD}	Forward On-Voltage	I _S = 16A; V _{GS} = 0	--	1.5	V

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