

Isc N-Channel MOSFET Transistor

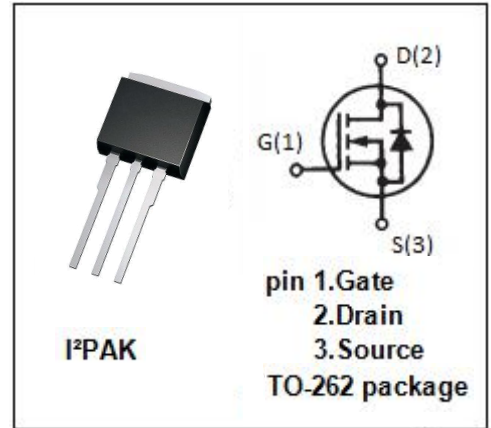
STI18N65M5

• FEATURES

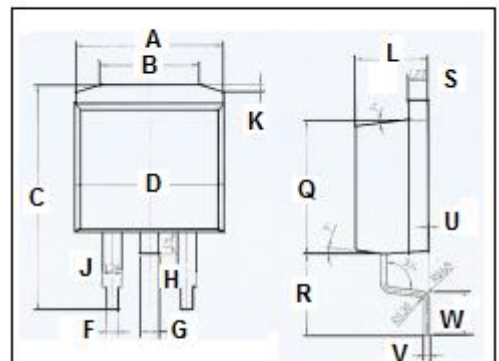
- Higher V_{DSS} rating
- Excellent switching performance
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

• APPLICATIONS

- Switching applications


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

SYMBOL	PARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage	650	V
V_{GSS}	Gate-Source Voltage	± 25	V
I_D	Drain Current-Continuous@ $T_c=25^{\circ}C$ $T_c=100^{\circ}C$	15 9.4	A
I_{DM}	Drain Current-Single Pulsed	60	A
P_D	Total Dissipation	110	W
T_j	Operating Junction Temperature	-55~150	$^{\circ}C$
T_{stg}	Storage Temperature	-55~150	$^{\circ}C$



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

• THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th(ch-c)}$	Channel-to-case thermal resistance	1.14	$^{\circ}C/W$

Isc N-Channel MOSFET Transistor**STI18N65M5****ELECTRICAL CHARACTERISTICS**T_c=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
B _V DSS	Drain-Source Breakdown Voltage	V _{GS} =0V; I _D = 1mA	650			V
V _{GS(th)}	Gate Threshold Voltage	V _{DS} =±25V; I _D =0.25mA	3		5	V
R _{DS(on)}	Drain-Source On-Resistance	V _{GS} = 10V; I _D =7.5A			220	mΩ
I _{GSS}	Gate-Source Leakage Current	V _{GS} = ±25V; V _{DS} = 0V			±0.1	μA
I _{DSS}	Drain-Source Leakage Current	V _{DS} = 650V; V _{GS} = 0V; T _J =25°C T _J =125°C			1 100	μA
V _{SDF}	Diode forward voltage	I _{SD} =15A, V _{GS} = 0 V			1.5	V

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