

Isc N-Channel MOSFET Transistor

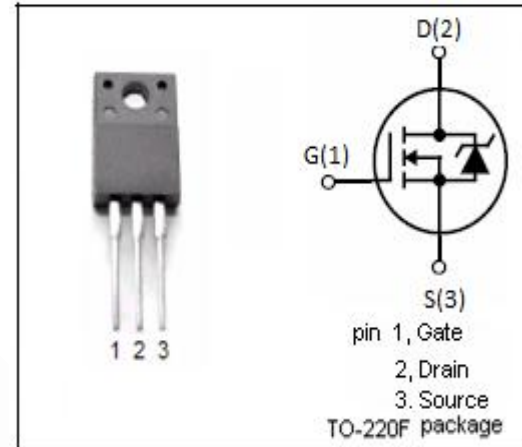
STF18N65M5

• FEATURES

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

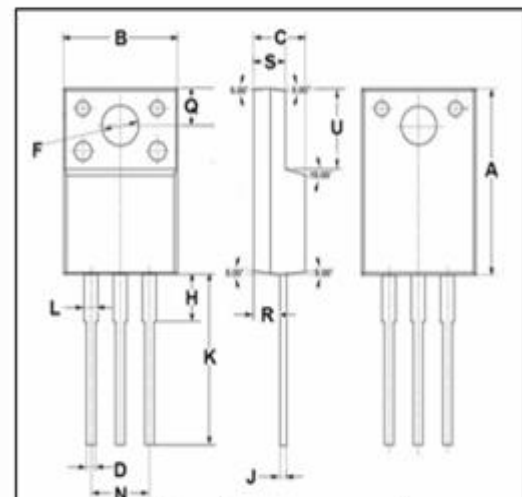
• APPLICATIONS

- Switching applications



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

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



DIM	mm	
	MIN	MAX
A	14.95	15.05
B	10.00	10.10
C	4.40	4.60
D	0.75	0.90
F	3.10	3.30
H	3.70	3.90
J	0.50	0.70
K	13.4	13.6
L	1.10	1.30
N	5.00	5.20
Q	2.70	2.90
R	2.20	2.40
S	2.65	2.90
U	6.40	6.60

• THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th(ch-c)}$	Channel-to-case thermal resistance	5	$^{\circ}\text{C}/\text{W}$
$R_{th(ch-a)}$	Channel-to-ambient thermal resistance	62.5	$^{\circ}\text{C}/\text{W}$

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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	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		198	225	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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