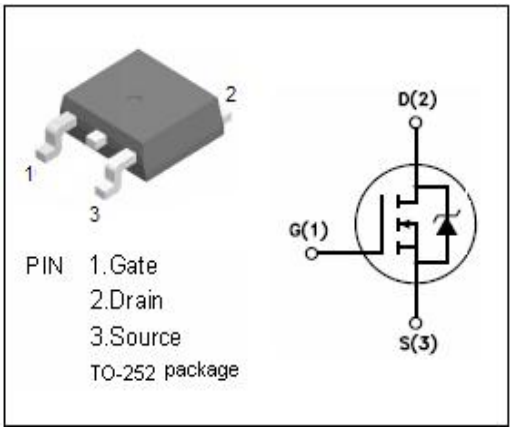
Isc N-Channel MOSFET Transistor STD18N65M5

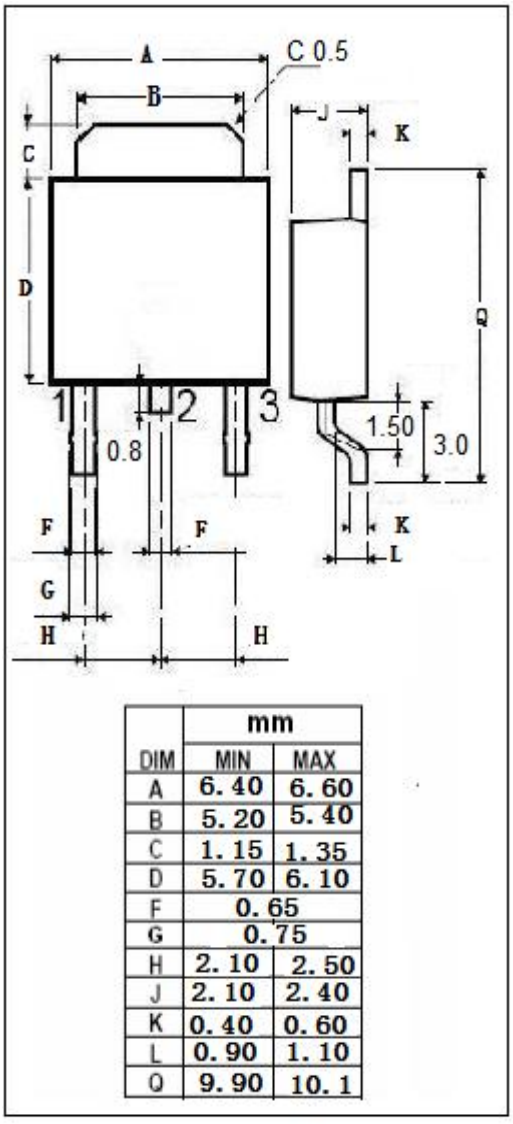


• FEATURES

- 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



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

• ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

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℃ （ T_J=175℃） T_C=125℃	15 9.4	A
I_{DM}	Drain Current-Single Pulsed	60	A
P_D	Total Dissipation @T_C=25℃	110	W
T_{ch}	Max. Operating Junction Temperature	150	℃
T_{stg}	Storage Temperature	-55~150	℃

• THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
Rth(ch-c)	Channel-to-case thermal resistance	1.14	℃/W
Rth(ch-a)	Channel-to-ambient thermal resistance	50	℃/W

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ELECTRICAL CHARACTERISTICS

T_C=25℃ 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	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℃ T_J=125℃			1 100	μA
V_{SDF}	Diode forward voltage	I_{SD} =15A, V_{GS} = 0 V			1.5	V