

Isc N-Channel MOSFET Transistor

STP8N65M5

• FEATURES

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

• APPLICATIONS

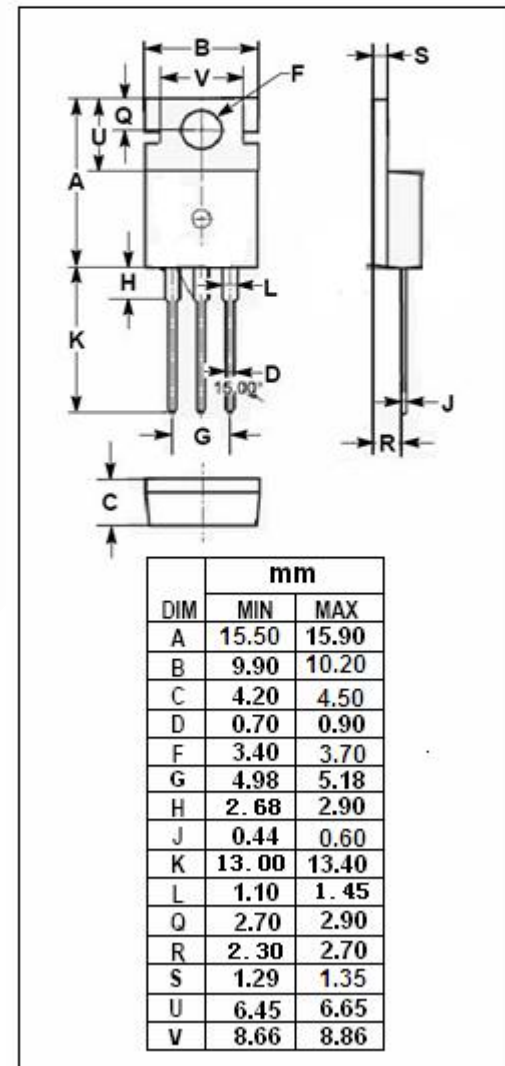
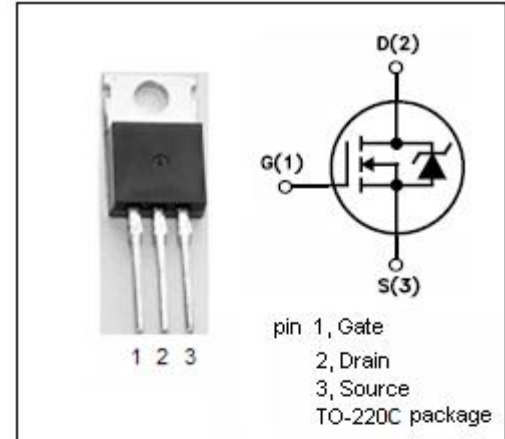
- Switching applications

• 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@ $T_c=25^{\circ}C$ $T_c=100^{\circ}C$	7.0 4.4	A
I_{DM}	Drain Current-Single Pulsed	28	A
P_D	Total Dissipation	70	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	1.79	$^{\circ}C/W$
$R_{th(ch-a)}$	Channel-to-ambient thermal resistance	62.5	$^{\circ}C/W$



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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 =3.5A			0.6	Ω
I _{GSS}	Gate-Source Leakage Current	V _{GS} = ±25V; V _{DS} = 0V			±0.1	μ A
I _{DSS}	Drain-Source Leakage Current	V _{DS} = 650V; V _{GS} = 0V; T _J =25°C T _J =125°C			1 100	μ A
V _{SD}	Diode forward voltage	I _{SD} =7A, V _{GS} = 0 V			1.5	V

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