

Isc N-Channel MOSFET Transistor

STF57N65M5

• FEATURES

- With TO-220F packaging
- High speed switching
- Low gate input resistance
- Standard level gate drive
- Easy to use
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

• APPLICATIONS

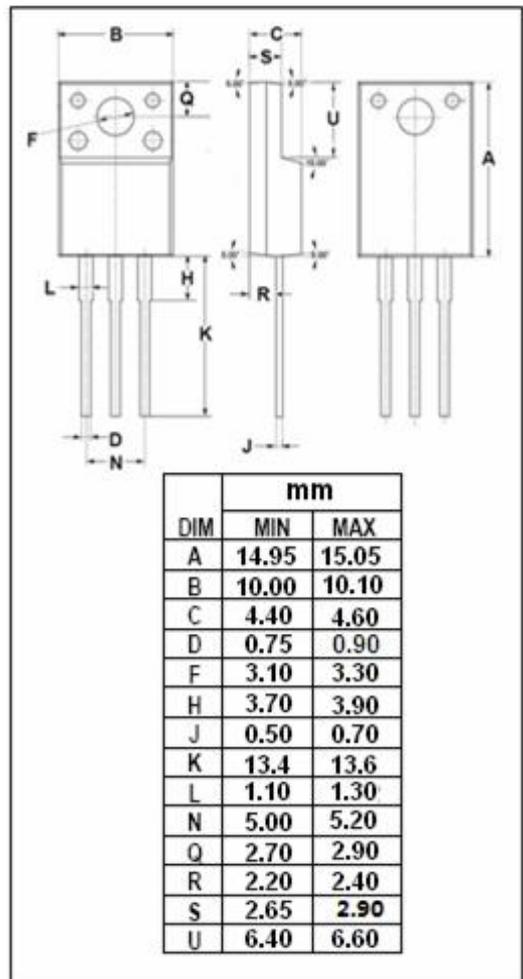
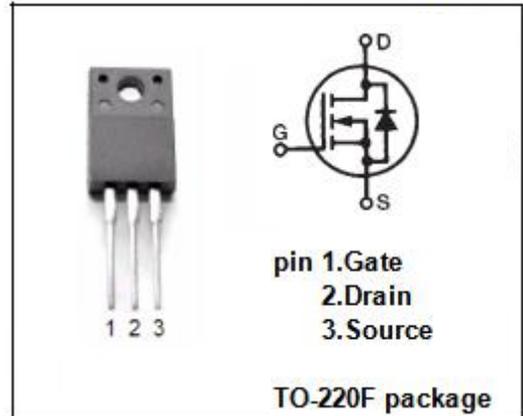
- Power supply
- Switching applications

• ABSOLUTE MAXIMUM RATINGS(T_a=25°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°C T _c =100°C	42 26.5	A
I _{DM}	Drain Current-Single Pulsed	168	A
P _D	Total Dissipation	40	W
T _j	Operating Junction Temperature	150	°C
T _{stg}	Storage Temperature	-55~150	°C

• THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R _{th(ch-c)}	Channel-to-case thermal resistance	3.1	°C/W



Isc N-Channel MOSFET Transistor**STF57N65M5****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} =V _{GS} V; I _D =0.25mA	3		5	V
R _{DS(on)}	Drain-Source On-Resistance	V _{GS} = 10V; I _D =21A		56	63	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} =42A, V _{GS} = 0 V			1.5	V

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