

isc N-Channel MOSFET Transistor

STW54NM65ND

• FEATURES

- With TO-247 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

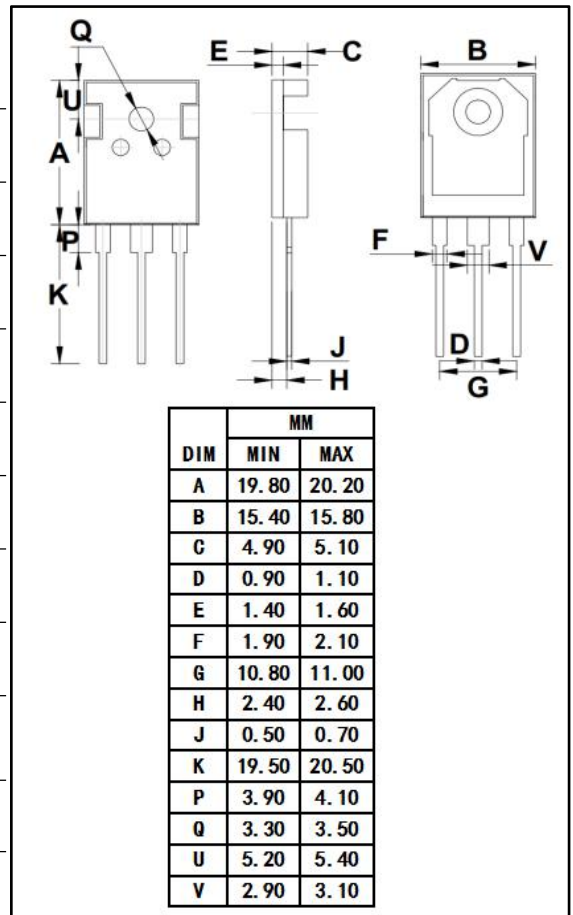
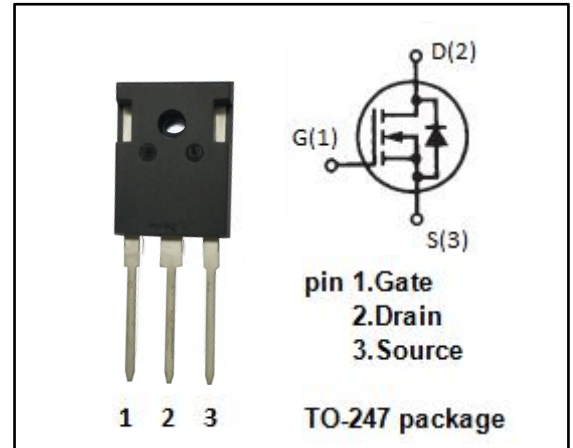
- Power supply
- Switching applications

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{DS}	Drain-Source Voltage	650	V
V_{GS}	Gate-Source Voltage	± 25	V
I_D	Drain Current-Continuous@ $T_c=25^\circ\text{C}$	49	A
I_{DM}	Drain Current-Single Pulsed	196	A
P_D	Total Dissipation	350	W
T_j	Operating Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature	-55~150	$^\circ\text{C}$

• THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th(ch-c)}$	Channel-to-case thermal resistance	0.36	$^\circ\text{C/W}$



isc N-Channel MOSFET Transistor**STW54NM65ND****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 = 1.0mA	650			V
V _{GS(th)}	Gate Threshold Voltage	V _{DS} =V _{GS} ; I _D =0.25mA	3.0		5.0	V
R _{DS(on)}	Drain-Source On-Resistance	V _{GS} = 10V; I _D = 24.5A			65	mΩ
I _{GSS}	Gate-Source Leakage Current	V _{GS} = ±25V; V _{DS} = 0V			±100	nA
I _{DSS}	Drain-Source Leakage Current	V _{DS} =650V; V _{GS} = 0V; T _c =25°C T _c =125°C			10 100	μA
V _{SDF}	Diode forward voltage	I _{SD} = 49A, V _{GS} = 0 V			1.3	V

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