

Isc N-Channel MOSFET Transistor

STWA45N65M5

• FEATURES

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

• APPLICATIONS

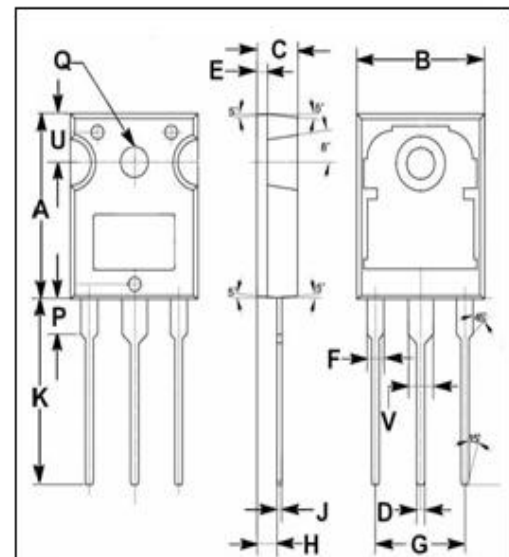
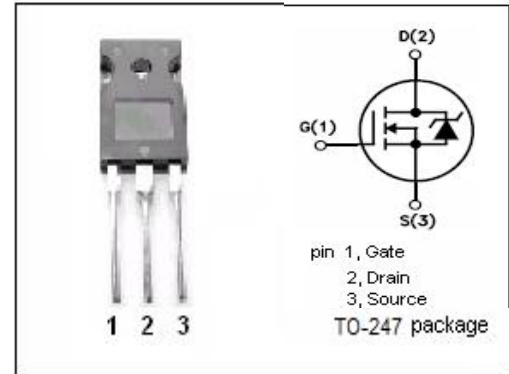
- Switching applications

• 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@ $T_c=100^\circ C$	22	A
I_{DM}	Drain Current-Single Pulsed	140	A
P_D	Total Dissipation	210	W
T_{ch}	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	0.6	$^\circ C/W$
$R_{th(ch-a)}$	Channel-to-ambient thermal resistance	50	$^\circ C/W$



DIM	mm	
	MIN	MAX
A	19.80	20.20
B	15.40	15.80
C	4.90	5.10
D	0.90	1.10
E	1.40	1.60
F	1.90	2.10
G	10.80	11.00
H	2.40	2.60
J	0.50	0.70
K	19.50	20.50
P	3.90	4.10
Q	3.30	3.50
U	5.20	5.40
V	2.90	3.10

Isc N-Channel MOSFET Transistor**STWA45N65M5****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 =1mA	3		5	V
R _{DS(on)}	Drain-Source On-Resistance	V _{GS} = 10V; I _D =17.5A		67	78	mΩ
I _{GSS}	Gate-Source Leakage Current	V _{GS} = ±25V; V _{DS} = 0V			±0.1	μA
I _{DSS}	Drain-Source Leakage Current	V _{DS} = 710V; V _{GS} = 0V; T _J =25°C T _J =125°C			1 100	μA
V _{SDF}	Diode forward voltage	I _{SD} =35A, V _{GS} = 0 V			1.5	V

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