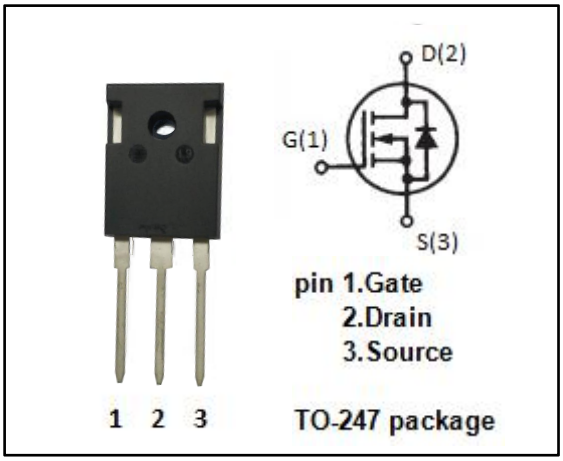
isc N-Channel MOSFET Transistor STW42N65M5

FEATURES

- Drain Current –I_D=33A@ T_C=25℃
- Drain Source Voltage-
  : V_{DSS}= 650V(Min)
- Static Drain-Source On-Resistance
  : $R_{DS(on)}$ = 79mΩ(Max)
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation



APPLICATIONS

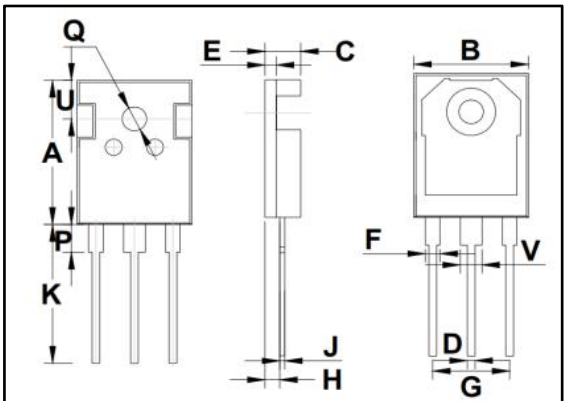
- Switching application

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage	650	V
V_{GS}	Gate-Source Voltage-Continuous	±25	V
I_D	Drain Current-Continuous	33	A
I_{DM}	Drain Current-Single Pluse	132	A
P_D	Total Dissipation @T_C=25℃	190	W
T_J	Max. Operating Junction Temperature	150	℃
T_{stg}	Storage Temperature	-55~150	℃

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance, Junction to Case	0.66	℃/W



DIM	MM MIN	MM 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

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ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$V_{(BR)DSS}$	Drain-Source Breakdown Voltage	V_{GS}= 0; I_D= 1mA	650		V
$V_{GS(th)}$	Gate Threshold Voltage	V_{DS}= V_{GS}; I_D= 0.25mA	3	5	V
$R_{DS(on)}$	Drain-Source On-Resistance	V_{GS}= 10V; I_D=16.5A		79	mΩ
I_{GSS}	Gate-Body Leakage Current	V_{GS}= ±25V;V_{DS}= 0		±100	nA
I_{DSS}	Zero Gate Voltage Drain Current	V_{DS}= 650V; V_{GS}= 0 V_{DS}= 650V; V_{GS}= 0; T_j= 125℃		1 100	μA
V_{SD}	Forward On-Voltage	I_S= 33A; V_{GS}=0		1.5	V

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