

Isc N-Channel MOSFET Transistor

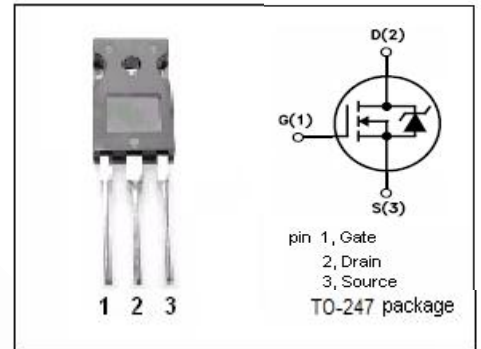
STW77N65M5

• FEATURES

- With TO-247 package
- Low input capacitance and gate charge
- Low gate input resistance
- Easy to use
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

• APPLICATIONS

- Switching applications

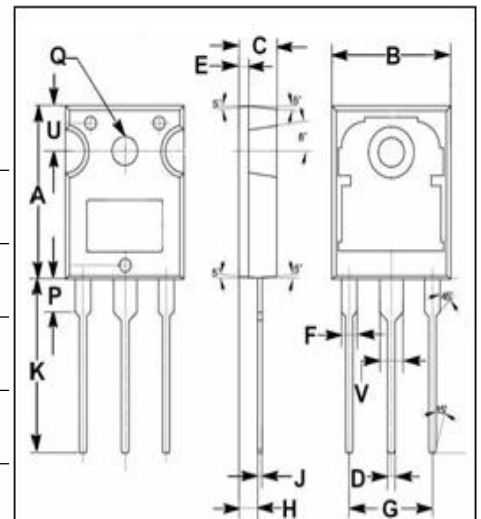


• ABSOLUTE MAXIMUM RATINGS($T_a=25^{\circ}\text{C}$)

SYMBOL	PARAMETER	VALUE	UNIT
V_{DS}	Drain-Source Voltage	650	V
V_{GS}	Gate-Source Voltage	± 25	V
I_D	Drain Current-Continuous @ $T_c=25^{\circ}\text{C}$ $T_c=100^{\circ}\text{C}$	69 41.5	A
I_{DM}	Drain Current-Single Pulsed	276	A
P_D	Total Dissipation @ $T_c=25^{\circ}\text{C}$	400	W
T_j	Max. 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	0.31	$^{\circ}\text{C/W}$
$R_{th(ch-a)}$	Channel-to-ambient thermal resistance	50	$^{\circ}\text{C/W}$



DIM	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

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ELECTRICAL CHARACTERISTICS

$T_C=25^{\circ}\text{C}$ 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	$V_{DS}= \pm 25V; I_D=0.25mA$	3.0		5.0	V
$R_{DS(on)}$	Drain-Source On-Resistance	$V_{GS}= 10V; I_D=34.5A$		33	38	$m\Omega$
I_{GSS}	Gate-Source Leakage Current	$V_{GS}= \pm 25V; V_{DS}= 0V$			± 0.1	μA
I_{DSS}	Drain-Source Leakage Current	$V_{DS}= 650V; V_{GS}= 0V; T_J=25^{\circ}\text{C}$ $V_{DS}= 650V; V_{GS}= 0V; T_J=125^{\circ}\text{C}$			1 100	μA
V_{SDF}	Diode forward voltage	$I_{SD}=69A, V_{GS}= 0V$			1.5	V