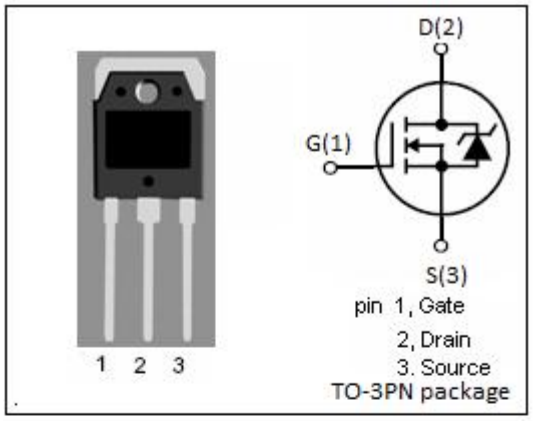
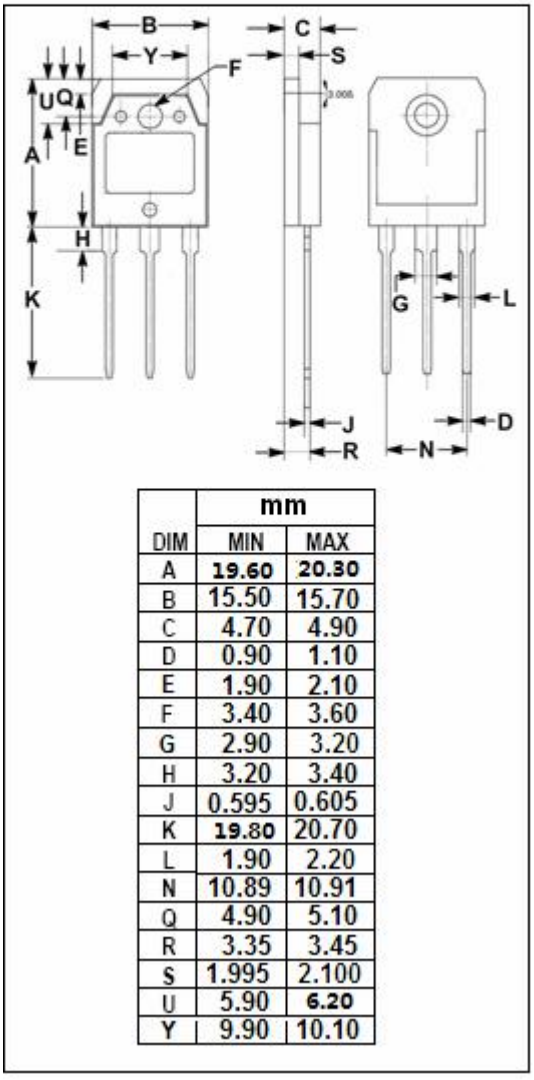
isc N-Channel MOSFET Transistor 75N05E



- **DESCRIPTION**
- Drain Current I_D= 75A@ T_C=25℃
- Drain Source Voltage-
  : V_{DSS}= 50V(Min)
- Fast Switching Speed
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

- **APPLICATIONS**
- General purpose power amplifier



DIM	mm MIN	MAX
A	19.60	20.30
B	15.50	15.70
C	4.70	4.90
D	0.90	1.10
E	1.90	2.10
F	3.40	3.60
G	2.90	3.20
H	3.20	3.40
J	0.595	0.605
K	19.80	20.70
L	1.90	2.20
N	10.89	10.91
Q	4.90	5.10
R	3.35	3.45
S	1.995	2.100
U	5.90	6.20
Y	9.90	10.10

ABSOLUTE MAXIMUM RATINGS(T_C=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage (V_{GS}=0)	50	V
V_{GS}	Gate-Source Voltage	±20	V
I_D	Drain Current-continuous@ T_C=25℃	75	A
$I_{D(puls)}$	Pulse Drain Current	200	A
P_{tot}	Total Dissipation@T_C=25℃	240	W
T_j	Max. Operating Junction Temperature	175	℃
T_{stg}	Storage Temperature Range	-55~175	℃

• THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance, Junction to Case	0.625	℃/W
$R_{th\ j\text{-}a}$	Thermal Resistance, Junction to Ambient	80	℃/W

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• ELECTRICAL CHARACTERISTICS (T_C=25℃)

SYMBOL	PARAMETER	CONDITIONS	MIN	TYPE	MAX	UNIT
$V_{(BR)DSS}$	Drain-Source Breakdown Voltage	V_{GS}= 0; I_D= 250μA	50			V
$V_{GS(th)}$	Gate Threshold Voltage	V_{DS}= V_{GS}; I_D=250μA	2.0		4.0	V
V_{SD}	Diode Forward On-Voltage	I_S=75A ;V_{GS}= 0			1.5	V
$R_{DS(on)}$	Drain-Source On-Resistance	V_{GS}= 10V; I_D=75A			0.008	Ω
I_{GSS}	Gate-Body Leakage Current	V_{GS}= ±20V;V_{DS}= 0			±100	nA
I_{DSS}	Zero Gate Voltage Drain Current	V_{DS}= 50V; V_{GS}= 0			1	μA
t_r	Rise Time	V_{GS}=10V; I_D=37.5A; V_{DD}=25V; R_L=0.67Ω		75		ns
$t_{d(on)}$	Turn-on Delay Time			17		
t_f	Fall Time			17		
$t_{d(off)}$	Turn-off Delay Time			70		

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