

isc N-Channel MOSFET Transistor

FMH09N90E

• FEATURES

- With TO-3PN packaging
- Low on-resistance
- Low drive current
- Easy to use
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operationz

• APPLICATIONS

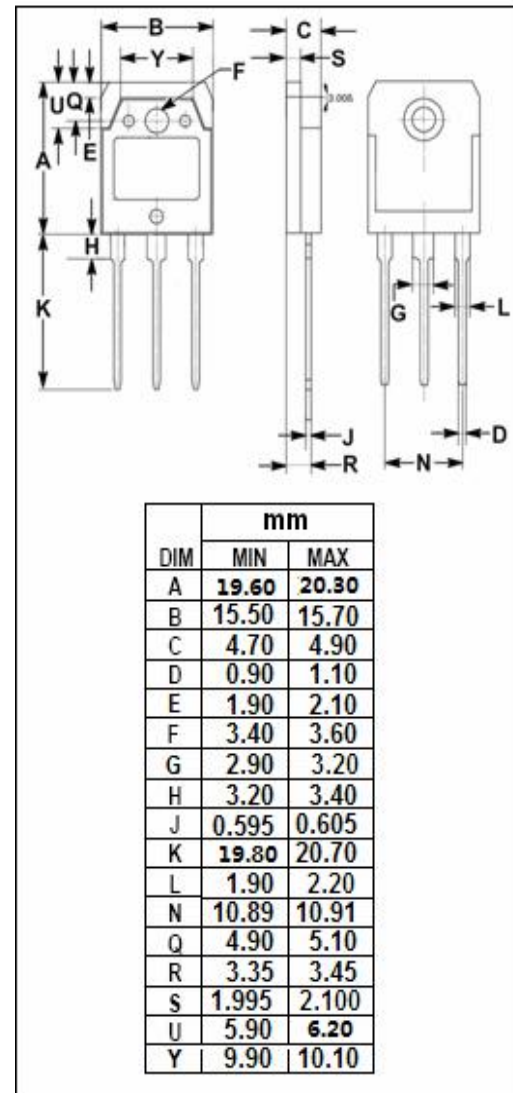
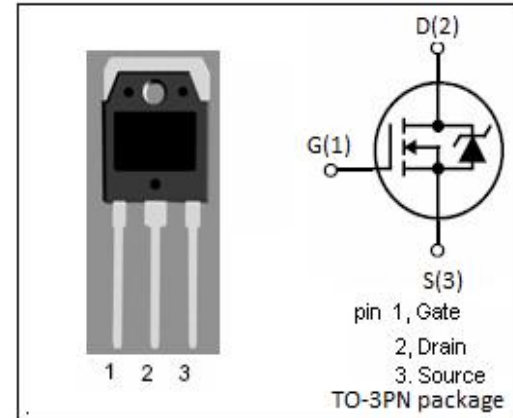
- Switching applications
- DC-DC converters
- Uninterruptible power supply

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage	900	V
V_{GSS}	Gate-Source Voltage	± 30	V
I_D	Drain Current-Continuous	9	A
I_{DM}	Drain Current-Single Pulsed	36	A
P_D	Total Dissipation	202	W
T_j	Operating Junction Temperature	-55~150	$^{\circ}\text{C}$
T_{stg}	Storage Temperature	-55~150	$^{\circ}\text{C}$

• THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th(ch-c)}$	Channel-to-case thermal resistance	0.61	$^{\circ}\text{C}/\text{W}$
$R_{th(ch-a)}$	Channel-to-ambient thermal resistance	50	$^{\circ}\text{C}/\text{W}$



isc N-Channel MOSFET Transistor**FMH09N90E****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 = 0.25mA	900			V
V _{GS(th)}	Gate Threshold Voltage	V _{DS} =±30V; I _D =0.25mA	3.5		4.5	V
R _{DS(on)}	Drain-Source On-Resistance	V _{GS} = 10V; I _D =4.5A		1.16	1.4	Ω
I _{GSS}	Gate-Source Leakage Current	V _{GS} = ±30V; V _{DS} = 0V			±0.1	μ A
I _{DSS}	Drain-Source Leakage Current	V _{DS} = 900V; V _{GS} =0V; T _C =25°C V _{DS} = 720V; V _{GS} = 0V; T _C =125°C			25 250	μ A
V _{SDF}	Diode forward voltage	I _{SD} =9A, V _{GS} = 0 V			1.35	V

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