

# Isc N-Channel MOSFET Transistor

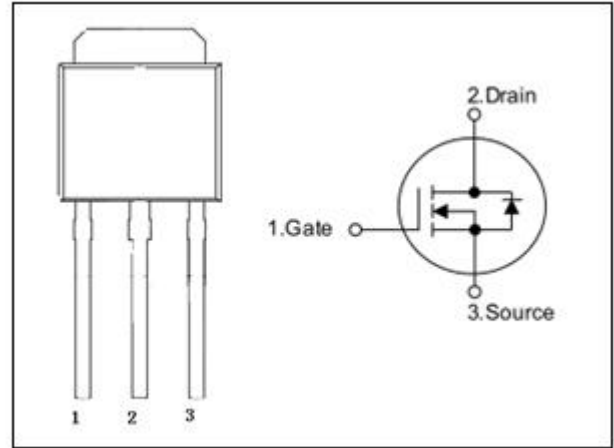
# MMIS70R900PTH

**• FEATURES**

- With TO-251(IPAK) packaging
- Low power loss
- High speed switching
- Low on-resistance
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

**• APPLICATIONS**

- Switching applications
- DC - DC Converters



**• ABSOLUTE MAXIMUM RATINGS(T<sub>a</sub>=25°C)**

SYMBOL	PARAMETER	VALUE	UNIT
V <sub>DSS</sub>	Drain-Source Voltage	700	V
V <sub>GSS</sub>	Gate-Source Voltage	±30	V
I <sub>D</sub>	Drain Current-Continuous@T <sub>C</sub> =25°C T <sub>C</sub> =100°C	5 3	A
I <sub>DM</sub>	Drain Current-Single Pulsed	15	A
P <sub>D</sub>	Total Dissipation	40	W
T <sub>ch</sub>	Max. Operating Junction Temperature	150	°C
T <sub>stg</sub>	Storage Temperature	-55~150	°C

**• THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	MAX	UNIT
R <sub>th(ch-c)</sub>	Channel-to-case thermal resistance	3.1	°C/W
R <sub>th(ch-a)</sub>	Channel-to-ambient thermal resistance	62.5	°C/W

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ELECTRICAL CHARACTERISTICS

T<sub>C</sub>=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
BV <sub>DSS</sub>	Drain-Source Breakdown Voltage	V <sub>GS</sub> =0V; I <sub>D</sub> = 0.25mA	700			V
V <sub>GS(th)</sub>	Gate Threshold Voltage	V <sub>DS</sub> = ±30V; I <sub>D</sub> =0.25mA	2		4	V
R <sub>DS(on)</sub>	Drain-Source On-Resistance	V <sub>GS</sub> = 10V; I <sub>D</sub> =1.5A		810	900	mΩ
I <sub>GSS</sub>	Gate-Source Leakage Current	V <sub>GS</sub> = ±30V; V <sub>DS</sub> = 0V			±0.1	μA
I <sub>DSS</sub>	Drain-Source Leakage Current	V <sub>DS</sub> =700V; V <sub>GS</sub> = 0V;			1	μA
V <sub>SDF</sub>	Diode forward voltage	I <sub>SD</sub> =5A, V <sub>GS</sub> = 0 V			1.4	V

TO-251 OUTLINE DIMENSIONAL DRAWING

