

# Isc N-Channel MOSFET Transistor

# IRFR3607PbF

**• FEATURES**

- With TO-252(DPAK) packaging
- Uninterruptible power supply
- High speed switching
- Hard switched and high frequency circuits
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

**• APPLICATIONS**

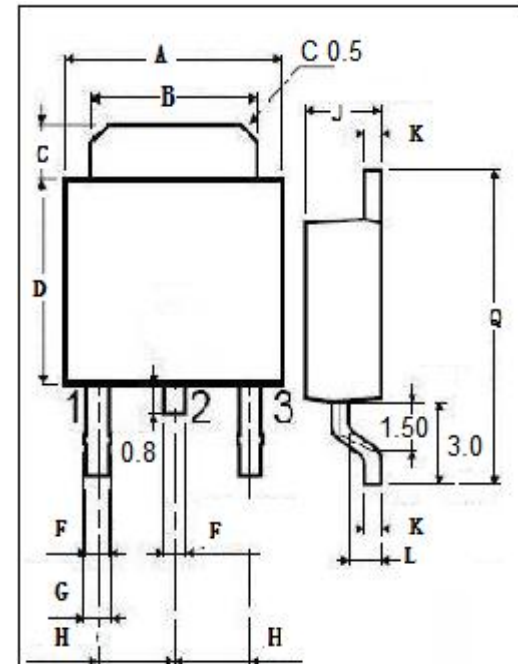
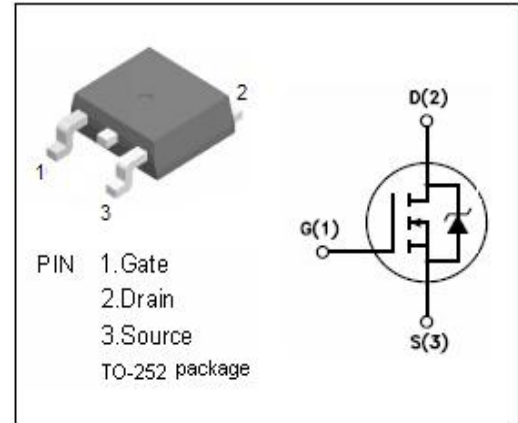
- Switching applications

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

SYMBOL	PARAMETER	VALUE	UNIT
V <sub>DSS</sub>	Drain-Source Voltage	75	V
V <sub>GSS</sub>	Gate-Source Voltage	±20	V
I <sub>D</sub>	Drain Current-Continuous@T <sub>c</sub> =25°C T <sub>c</sub> =100°C	80 56	A
I <sub>DM</sub>	Drain Current-Single Pulsed	310	A
P <sub>D</sub>	Total Dissipation	140	W
T <sub>j</sub>	Operating Junction Temperature	-55~175	°C
T <sub>stg</sub>	Storage Temperature	-55~175	°C

**• THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	MAX	UNIT
R <sub>th(ch-c)</sub>	Channel-to-case thermal resistance	1.05	°C/W
R <sub>th(ch-a)</sub>	Channel-to-ambient thermal resistance	110	°C/W



DIM	mm	
	MIN	MAX
A	6.40	6.60
B	5.20	5.40
C	1.15	1.35
D	5.70	6.10
F	0.65	
G	0.75	
H	2.10	2.50
J	2.10	2.40
K	0.40	0.60
L	0.90	1.10
Q	9.90	10.1

**Isc N-Channel MOSFET Transistor****IRFR3607PbF****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	75			V
V <sub>GS(th)</sub>	Gate Threshold Voltage	V <sub>DS</sub> =±20V; 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> =46A		7.34	9.0	mΩ
I <sub>GSS</sub>	Gate-Source Leakage Current	V <sub>GS</sub> = ±20V; V <sub>DS</sub> = 0V			±0.1	μA
I <sub>DSS</sub>	Drain-Source Leakage Current	V <sub>DS</sub> = 75V; V <sub>GS</sub> = 0V@T <sub>c</sub> =25°C T <sub>c</sub> =125°C			20 250	μA
V <sub>SDF</sub>	Diode forward voltage	I <sub>SD</sub> =46A, V <sub>GS</sub> = 0 V			1.3	V

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