

**isc P-Channel MOSFET Transistor**

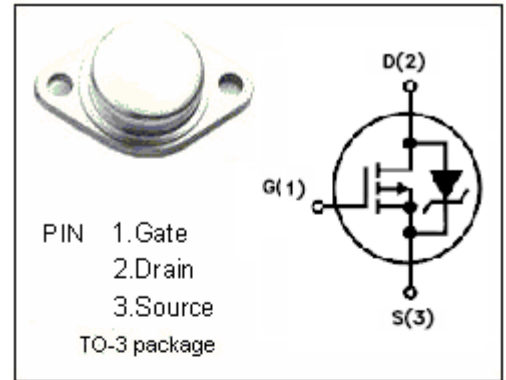
**FRM9140**

**DESCRIPTION**

- -11A, -100V, RDS(on) = 0.3Ω
- Second Generation Rad Hard MOSFET Results From New Design Concepts

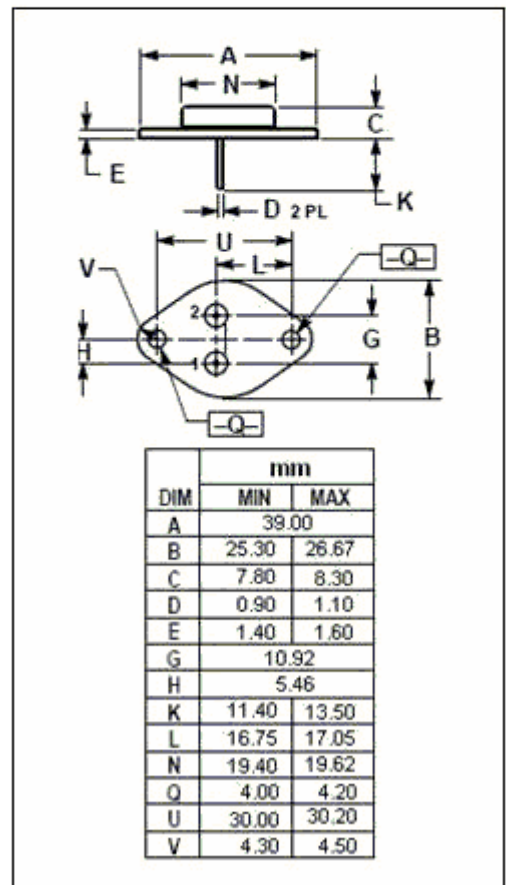
**APPLICATIONS**

It is specially designed and processed to exhibit minimal characteristic changes to total dose and neutron exposures. Design and processing efforts are also directed to enhance survival to heavy ion (SEE) and/or dose rate (GAMMA DOT) exposure.



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

SYMBOL	PARAMETER	VALUE	UNIT
V <sub>DSS</sub>	Drain-Source Voltage (V <sub>GS</sub> =0)	-100	V
V <sub>GS</sub>	Gate-Source Voltage	±20	V
I <sub>D</sub>	Drain Current-continuous@ TC=37°C	-11	A
P <sub>tot</sub>	Total Dissipation@TC=25°C	125	W
T <sub>j</sub>	Max. Operating Junction Temperature	-55~150	°C
T <sub>stg</sub>	Storage Temperature Range	-55~150	°C



**THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	MAX	UNIT
R <sub>th j-c</sub>	Thermal Resistance,Junction to Case	1.0	°C/W
R <sub>th j-a</sub>	Thermal Resistance,Junction to Ambient	30	°C/W

**isc N-Channel Mosfet Transistor****FRM9140****• ELECTRICAL CHARACTERISTICS (T<sub>C</sub>=25°C)**

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
V <sub>(BR)DSS</sub>	Drain-Source Breakdown Voltage	V <sub>GS</sub> = 0; I <sub>D</sub> = -1mA	-100		V
V <sub>GS(TH)</sub>	Gate Threshold Voltage	V <sub>DS</sub> = V <sub>GS</sub> ; I <sub>D</sub> = -1mA	-2.0	-4	V
R <sub>DS(ON)</sub>	Drain-Source On-stage Resistance	V <sub>GS</sub> = -10V; I <sub>D</sub> = -7A		0.3	Ω
I <sub>GSS</sub>	Gate Source Leakage Current	V <sub>GS</sub> = ±20V; V <sub>DS</sub> = 0		100	nA
I <sub>DSS</sub>	Zero Gate Voltage Drain Current	V <sub>DS</sub> = -100V; V <sub>GS</sub> = 0		-1	mA
V <sub>SD</sub>	Diode Forward Voltage	I <sub>F</sub> = -11A; V <sub>GS</sub> = 0		-1.8	V