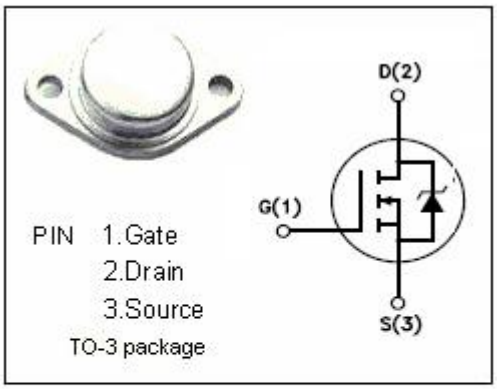
isc N-Channel MOSFET Transistor FRK250

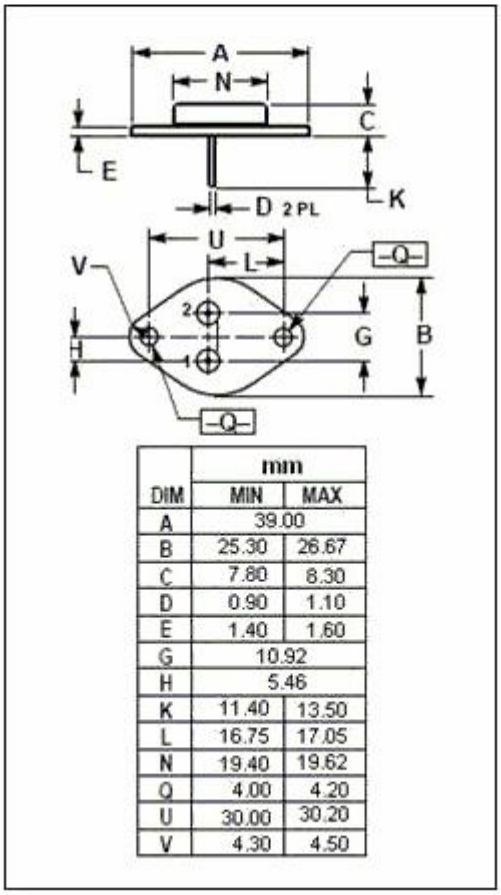
DESCRIPTION

- 27A, 200V, RDS(on) = 0.1Ω
- Second Generation Rad Hard MOSFET Results From New Design Concepts
- Minimum Lot-to-Lot variations for robust device performance and reliable operation



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.



DIM	mm MIN	MAX
A	39.00	
B	25.30	26.67
C	7.80	8.30
D	0.90	1.10
E	1.40	1.60
G	10.92	
H	5.46	
K	11.40	13.50
L	16.75	17.05
N	19.40	19.62
Q	4.00	4.20
U	30.00	30.20
V	4.30	4.50

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	ARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage (V_{GS}=0)	200	V
V_{GS}	Gate-Source Voltage	±20	V
I_D	Drain Current-continuous@ TC=37℃	27	A
P_{tot}	Total Dissipation@TC=25℃	150	W
T_j	Max. Operating Junction Temperature	-55~150	℃
T_{stg}	Storage Temperature Range	-55~150	℃

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance,Junction to Case	0.83	℃/W
$R_{th\ j\text{-}a}$	Thermal Resistance,Junction to Ambient	30	℃/W

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• **ELECTRICAL CHARACTERISTICS (T_C=25℃)**

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$V_{(BR)DSS}$	Drain-Source Breakdown Voltage	V_{GS}= 0; I_D= 1mA	200		V
$V_{GS(TH)}$	Gate Threshold Voltage	V_{DS}= V_{GS}; I_D= 1mA	2.0	4	V
$R_{DS(ON)}$	Drain-Source On-stage Resistance	V_{GS}= 10V; I_D= 17A		0.1	Ω
I_{GSS}	Gate Source Leakage Current	V_{GS}= ±20V;V_{DS}= 0		100	nA
I_{DSS}	Zero Gate Voltage Drain Current	V_{DS}= 200V; V_{GS}= 0		1	mA
V_{SD}	Diode Forward Voltage	I_F= 27A; V_{GS}= 0		1.8	V