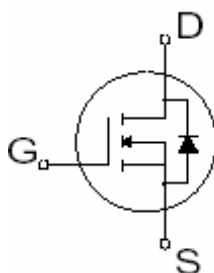


- Extremely high dv/dt capability
- Low Gate Charge Qg results in Simple Drive Requirement
- 100% avalanche tested
- Gate charge minimized
- Very low intrinsic capacitances
- Very good manufacturing repeatability



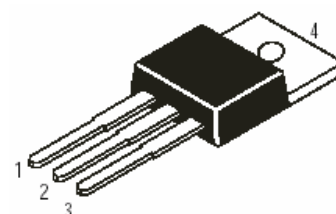
$$V_{DS} = 200V$$

$$I_{D25} = 2.5A$$

$$R_{DS(ON)} = 1.5 \Omega$$

Description

StarMOS is a new generation of high voltage N-Channel enhancement mode power MOSFETs. This new technology minimises the JFET effect, increases packing density and reduces the on-resistance. StarMOS also achieves faster switching speeds through optimised gate layout with planar stripe DMOS technology.



Pin1-Gate

Pin2-Drain

Pin3-Source

Application

- Switching application

Absolute Maximum Ratings

	Parameter	Max.	Units
$I_D@T_C=25^{\circ}C$	Continuous Drain Current, $V_{GS}@10V$	2.5	A
$I_D@T_C=100^{\circ}C$	Continuous Drain Current, $V_{GS}@10V$	1.5	
I_{DM}	Pulsed Drain Current ①	10	
$P_D@T_C=$			

Electrical Characteristics @T_J=25°C(unless otherwise specified)

	Parameter	Min.	Typ.	Max.	Units	Test Conditions
V _{(BR)DSS}	Drain-to-Source Breakdown Voltage	200	—	—	V	V _{GS} =0V, I _D =250μA
ΔV _{(BR)DSS} /ΔT _J	Breakdown Voltage Temp.Coefficient	—	0.27	—	V/°C	Reference to 25°C, I _D =1mA
R _{DS(on)}	Static Drain-to-Source On-resistance	—	—	1.5	Ω	V _{GS} =10V, I _D =1.25A
V _{GS(th)}	Gate Threshold Voltage	2.0	—	4.0	V	V _{DS} =V _{GS} , I _D =250μA
g _{fs}	Forward Transconductance	0.8	—	—	S	V _{DS} =10V, I _D =1.25A
I _{DSS}	Drain-to-Source Leakage current	—	—	25	μA	V _{DS} =Rated V _{DSS} , V _{GS} =0V
		—	—	250		V _{DS} =0.8×Rated V _{DSS} , V _{GS} =0V, T _J =125°C
I _{GSS}	Gate-to-Source Forward leakage	—	—	100	nA	V _{GS} =20V
	Gate-to-Source Reverse leakage	—	—	-100		V _{GS} =-20V
Q _g	Total Gate Charge	—	—	7.5	nC	I _D =3.0A
Q _{gs}	Gate-to-Source charge	—	1.2	—		V _{DD} =45V
Q _{gd}	Gate-to-Drain("Miller") charge	—	3.0	—		
t _{d(on)}	Turn-on Delay Time	—	—	15	nS	V _{DD} =50V
t _r	Rise Time	—	—	25		I _D =1.25A
t _{d(off)}	Turn-Off Delay Time	—	—	15		V _{GS} =10V
t _f </						