

INCHANGE SEMICONDUCTOR

isc N-Channel MOSFET Transistor

IRL3103S

• FEATURES

- With TO-263(D2PAK) packaging
- · High speed switching
- · Low gate input resistance
- Standard level gate drive
- · Easy to use
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

• ABSOLUTE MAXIMUM RATINGS(T_a=25°C)

APPLICATIONS

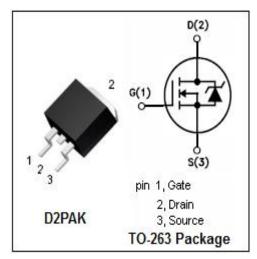
- · Power supply
- Switching applications

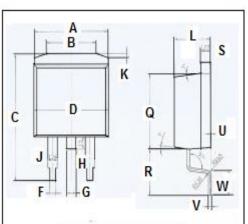
SYMBOL	PARAMETER	VALUE	UNIT				
V _{DSS}	Drain-Source Voltage	30	V				
V _{GSS}	Gate-Source Voltage	±16	∧v				
lD	Drain Current-Continuous;Tc=25℃ Tc=100℃	64 45	A				
I _{DM}	Drain Current-Single Pulsed	220	А				
P _D	Total Dissipation	94	W				
Tj	Operating Junction Temperature	150	°C				
T _{stg}	Storage Temperature	-55~175	°C				

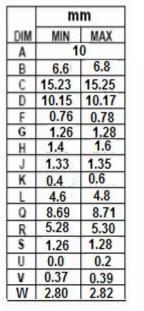
• THERMAL CHARACTERISTICS

SYMBOL	PARAMETER		UNIT	
Rth(ch-c)	Channel-to-case thermal resistance	1.6	°C /W	
Rth(ch-a)	Channel-to-ambient thermal resistance	40	°C/W	

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isc website: www.iscsemi.cn

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ELECTRICAL CHARACTERISTICS

 $T_c=25^{\circ}C$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	ТҮР	МАХ	UNIT
BV _{DSS}	Drain-Source Breakdown Voltage	V _{GS} =0V; I _D = 0.25mA	30			v
V _{GS} (th)	Gate Threshold Voltage	V _{DS} =V _{GS} ; I _D =0.25mA	1.0		3.0	v
R _{DS(on)}	Drain-Source On-Resistance	V _{GS} = 10V; I _D =34A			12	mΩ
lgss	Gate-Source Leakage Current	V _{GS} =±16V;V _{DS} =0V			±0.1	μA
I _{DSS}	Drain-Source Leakage Current	V _{DS} = 30V; V _{GS} = 0V;Tc=25℃ V _{DS} = 24V; V _{GS} = 0V; Tc=125℃			25 250	μA
V _{SDF}	Diode forward voltage	I _{SD} =34A, V _{GS} = 0 V			1.2	V

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