

isc N-Channel Mosfet Transistor

STB20NM50FD

- FEATURES
- Drain Current I_D= 20A@ T_C=25 $^\circ\!\!\mathrm{C}$
- Drain Source Voltage-

: V_{DSS}= 500V(Min)

- Fast Switching Speed
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

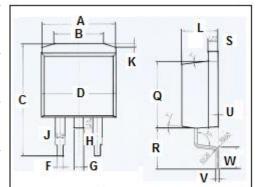
SYMBOL

Switching applications

• ABSOLUTE MAXIMUM RATINGS(Ta=25°C)

PARAMETER

	G(1) S(3)
12	pin 1.Gate
3	2.Drain
D ² PAK	3.Source
	TO-263 package



	mm		
DIM	MIN	MAX	
Α	1	0	
В	6.6	6.8	
C	15.23	15.25	
D	10.15	10.17	
F	0.76	0.78	
G	1.26	1.28	
Н	1.4	1.6	
J	1.33	1.35	
K	0.4	0.6	
L	4.6	4.8	
0	8.69	8.71	
R	5.28	5.30	
S	1.26	1.28	
U	0.0	0.2	
V	0.37	0.39	
W	2.80	2.82	

V _{DSS}	Drain-Source Voltage	500	V	
V_{GS}	Gate-Source Voltage	±30	V	
I _D	Drain Current-continuous@ T _c =25°C	20	A	
I _{DM}	Pulse Drain Current	80	A	
P _{tot}	Total Dissipation@T _C =25℃	192	W	
Tj	Max. Operating Junction Temperature	-65~150	°C	
T _{stg}	Storage Temperature Range	-65~150	°C	
THERMAL CHARACTERISTICS				

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	SYMBOL	PARAMETER	МАХ	UNIT		
	R _{th j-c}	Thermal Resistance, Junction to Case	0.65	°C/W		

isc website: www.iscsemi.com

isc & iscsemi is registered trademark

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VALUE

UNIT



isc N-Channel Mosfet Transistor

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ELECTRICAL CHARACTERISTICS

$T_{\text{C}}\text{=}25\,^\circ\!\!\!\mathrm{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYPE	МАХ	UNIT
V _{(BR)DSS}	Drain-Source Breakdown Voltage	V _{GS} = 0; I _D = 1mA	500			V
V _{GS} (th)	Gate Threshold Voltage	V _{DS} = V _{GS} ; I _D =250µA	3		5	V
R _{DS(on)}	Drain-Source On-Resistance	V _{GS} = 10V; I _D = 10A			250	mΩ
I _{GSS}	Gate-Body Leakage Current	V _{GS} = ±30V;V _{DS} =0			±100	nA
	Zero Gate Voltage Drain Current	V _{DS} = Max rating			1	μA
I _{DSS}		V _{DS} = Max rating; T _C =125℃			10	
V _{SD}	Diode Forward On-Voltage	I _S = 20A ;V _{GS} = 0			1.5	V

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