

iscN-Channel MOSFET Transistor

IRFB17N50L

RDS(0 • Enhanc Vth = • 100% a • Minimu perform	ain-source on-resistance: ON) =0.32Ω (MAX) cement mode: = 3.0 to 5.0V (VDs = 10 V, ID=0.25m avalanche tested m Lot-to-Lot variations for robust de nance and reliable operation	III		
	UTE MAXIMUM RATINGS(Ta=25	°C)		
SYMBOL	PARAMETER	VALUE	UNIT	
VDSS	Drain-Source Voltage	500	V	
V _{GS}	Gate-Source Voltage	±30	V	к [†]
ID	Drain Current-Continuous	16	A	
I _{DM}	Drain Current-Single Pulsed	64	A	
PD	Total Dissipation @T _C =25℃	220	W	DIM MIN MAX A 15.50 15.90
Tj	Max. Operating Junction Temperature	-55~150	Ĉ	B 9.80 10.20 C 4.20 4.50 D 0.70 0.90 F 3.40 3.70
T _{stg}	Storage Temperature	-55~150	°C	G 4.98 5.18 H 2.68 2.90 J 0.44 0.60
• THERM	IAL CHARACTERISTICS			K 12.80 13.40 L 1.20 1.45
SYMBOL	PARAMETER	МАХ	UNIT	Q 2.70 2.90 R 2.30 2.70 S 1.29 1.35
Rth(ch-c)	Channel-to-case thermal resistance	0.56	°C/W	U 6.45 6.65 V 8.66 8.86



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ELECTRICAL CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN	ТҮР	МАХ	UNIT
BV _{DSS}	Drain-Source Breakdown Voltage	V _{GS} =0V; I _D = 0.25mA	500			V
V _{GS} (th)	Gate Threshold Voltage	V _{DS} = 10V; I _D =0.25mA	3.0		5.0	V
R _{DS(on)}	Drain-Source On-Resistance	V _{GS} =10V; I _D =9.9A			0.32	Ω
lgss	Gate-Source Leakage Current	V _{GS} = ±30V;V _{DS} = 0V			±100	nA
I _{DSS}	Drain-Source Leakage Current	V _{DS} =500V; V _{GS} = 0V V _{DS} =400V; V _{GS} = 0V;T _J =125°C			0.05 2.0	mA
V _{SDF}	Diode forward voltage	I _{DR} =16A, V _{GS} = 0 V			1.5	V

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