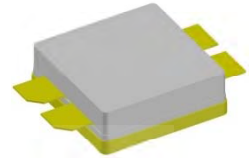


Product Features

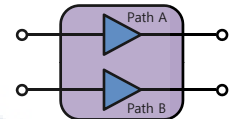
- 2300~2400MHz
- 240W Saturated Power @ 48V
- 55% Drain Efficiency @ 46dBm
- Internally Matched
- Asymmetrical Doherty GaN HEMT

Applications

- WiMAX, LTE, WCDMA, GSM
- Multi-Band, Multi-Mode
- Multi-Carrier
- High Efficiency, Doherty Amplifier



Package Type : RF12001DKR3



Typical Single-Carrier LTE Performance ($V_{DS} = +48V, T_C = 25^\circ C, 50\Omega$)

Frequency [MHz]	Peak Power	Average Power ^{*1}			
	Power [W]	Power [W]	Gain [dB]	Drain Efficiency [%]	ACLR [dBc]
2305.0	252.2	40	15.0	56.5	-23.9
2350.0	242.1	40	15.3	55.8	-25.6
2395.0	222.8	40	15.3	55.0	-26.1

Note

*1 Measured in the IE23195WD Doherty test board amplifier circuit, under LTE 10MHz, PAR 7.5dB @0.01% probability on CCDF.

Absolute Maximum Ratings

Rating	Symbol	Value	Unit	Condition
Drain to Source Voltage	V_{DSS}	150	V	$T_C = 25^\circ C$
Gate to Source Voltage	V_{GS}	-10, +2	V	$T_C = 25^\circ C$
Operating Voltage	V_{DD}	52	V_{DC}	-
Storage Temperature	T_{STG}	-65, +150	$^\circ C$	-
Case Operating Temperature	T_C	-40, +150	$^\circ C$	30 seconds
Operating Junction Temperature ^{*1}	T_J	225	$^\circ C$	-
Soldering Temperature ^{*2}	T_S	245	$^\circ C$	-

Note

*1 Continuous use at maximum temperature will affect MTF. The recommended maximum T_J is 225 $^\circ C$.

*2 Refer to the Application Note(AN-002) on soldering - "Solder Condition for RFHIC's GaN Device"

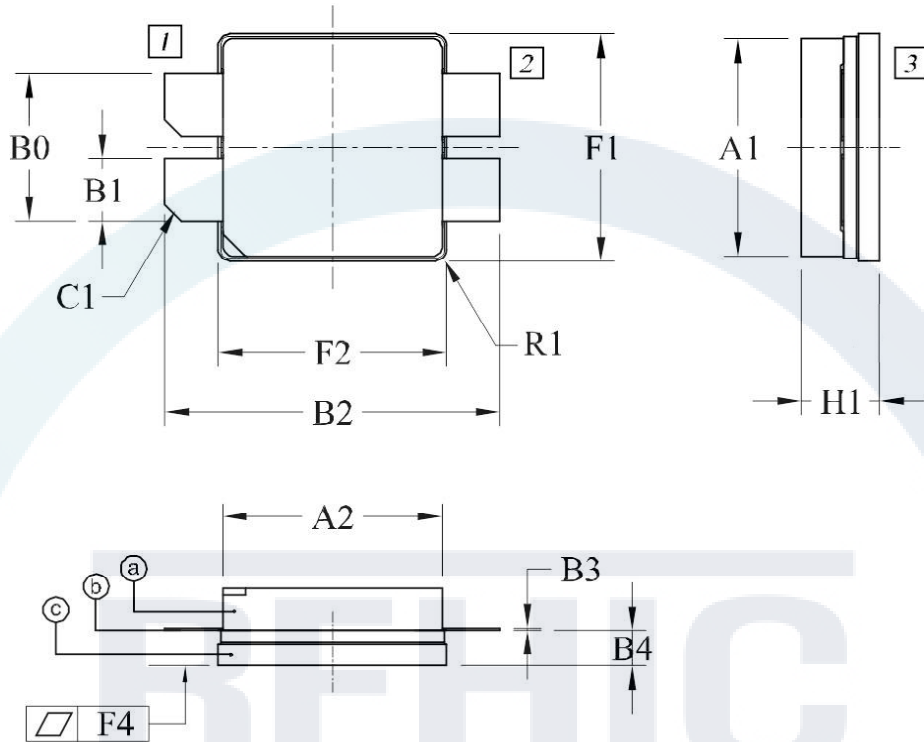
Thermal Characteristics

Rating	Symbol	Value	Unit	Condition
Thermal Resistance, Junction to Case	$R_{\theta JC}$	2.70 ^{*1}	$^\circ C/W$	$T_C = 85^\circ C$

Note

*1 Measured for the IE23195WD at dissipation power of 52W. This is the maximum value.

Package Dimensions (Type:RF12001DKR3)



Pin Description	
Pin No	Function
1	Path A Gate
2	Path B Gate
3	Path A Drain
4	Path B Drain
5	Source

- (a)- Lid
- (b)- Lead Frame
- (c)- Ceramic Ring

Dim.	INCH			MILLIMETER		
	MIN	TYP	MAX	MIN	TYP	MAX
A1	.379	.384	.389	9.63	9.76	9.89
A2	.379	.384	.389	9.63	9.76	9.89
B0	.253	.258	.263	6.43	6.56	6.69
B1	.104	.109	.115	2.65	2.78	2.91
B2	.567	.587	.606	14.40	14.90	15.40
B3	.003	.005	.007	0.08	0.13	0.18
B4	.057	.062	.067	1.44	1.57	1.70
C1 (Chamfer)	.024	.030	.035	0.62	0.75	0.88
F1	.395	.400	.405	10.03	10.16	10.29
F2	.395	.400	.405	10.03	10.16	10.29
F3	-	-	-	-	-	-
F4	-	.001	-	-	0.03	-
H1	.115	.137	.158	2.92	3.47	4.02
K1	-	-	-	-	-	-
K2	-	-	-	-	-	-
R1 (Radius)	.016	.020	.024	0.40	0.50	0.60

Revision History

Part Number	Release Date	Version	Description	Data Sheet Status
IE23195WD	February, 2017	0.1	Initial Release of DataSheet	Preliminary



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