MAPPST2933-190M

Radar Pulsed Power Pallet 190W, 2.9-3.3 GHz

Features



M/A-COM Products Released;

Outline Drawing

- Input and output matched to 50W
- RC bias circuit included
- Dual NPN silicon class C power transistors on in BeO hermetic packages
- Soft substrate er = 10.5
- Nickel plated copper flange



ABSOLUTE MAXIMUM RATING AT 25°C

Parameter	Symbol	Rating	Units
Collector-Emitter Voltage	V _{CES}	65	V
Emitter-Base Voltage	V _{EBO}	3.0	V
Junction Temparature	Tj	200	°C
Thermal Resistance	θ_{JC}	TBD	°C/W
Operating Flange Temp.	Tc	-10 to +100	°C
Storage Temp.	T _{STG}	-20 to +125	°C

ELECTRICAL CHARACTERISTICS AT 25°C

Parameter	Symbol	Test Conditions		Max	Units
Input Power	Pin	Vcc = 36V, Pout = 190Wpk, F = 2.9, 3.1, 3.3 GHz	-	37.9	Wpk
Power Gain	Gp	Vcc = 36V, Pout = 190Wpk, F = 2.9, 3.1, 3.3 GHz	7.0	-	dB
Collector Efficiency	ηC	Vcc = 36V, Pout = 190Wpk, F = 2.9, 3.1, 3.3 GHz	35	-	%
Input Return Loss	RL	Vcc = 36V, Pout = 190Wpk, F = 2.9, 3.1, 3.3 GHz	10	-	dB
Pulse Amplitude Droop	Droop	Vcc = 36V, Pout = 190Wpk, F = 2.9, 3.1, 3.3 GHz	-	.7	dB
2 nd Harmonic	2fc	Vcc = 36V, Pout = 190Wpk, F = 2.9, 3.1, 3.3 GHz	TBD	-	dBc
Spurious Level	Spurious	Vcc = 36V, Pout = 190Wpk, F = 2.9, 3.1, 3.3 GHz	-	-50	dBc
Insertion Phase Deviation		Vcc = 36V, Pout = 190Wpk, F = 2.9, 3.1, 3.3 GHz	-20	+20	Deg.
Tolerance & Stability	VSWR-T	Vcc = 36V, Pout = 190Wpk, F = 2.9, 3.1, 3.3 GHz	-	2:1	VSWR
Stability at Overdrive	OD-STAB	Pin = (Pin @ Pout = 190Wpk) + 1dB [Note 1]	-	-	-
Gain Flatness over Frequency	GF	Vcc = 36V, Pout = 190Wpk, F = 2.9, 3.1, 3.3 GHz	-	1.0	dB

Note : No oscillations and no spurs at 1dB overdrive

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