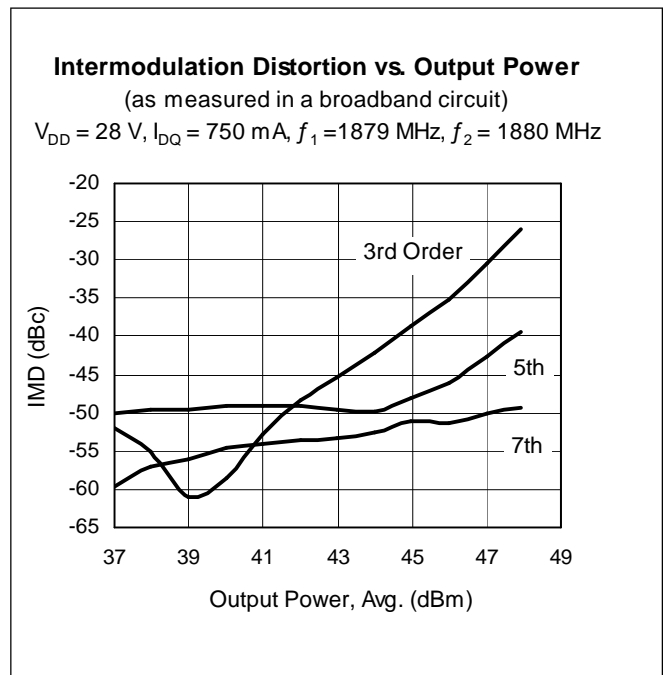
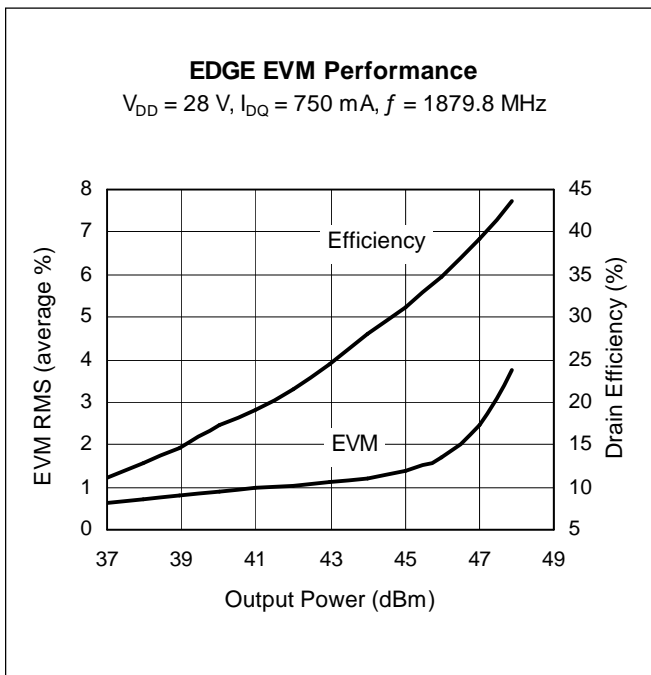
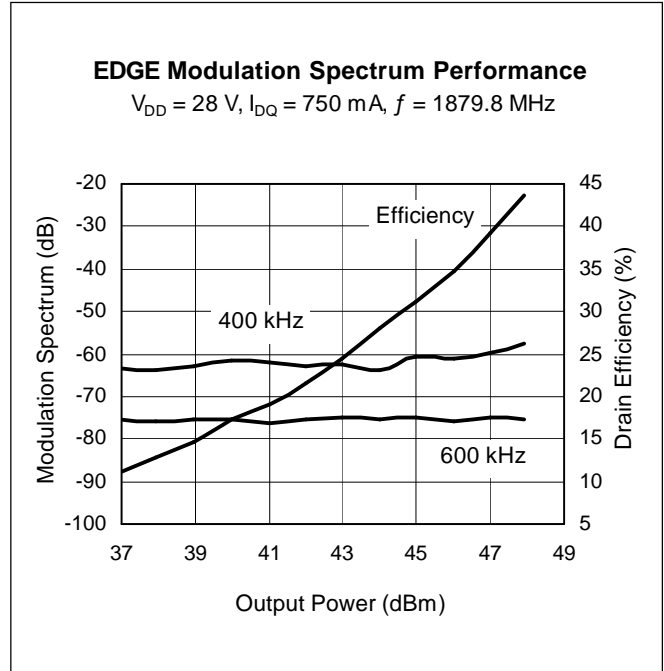
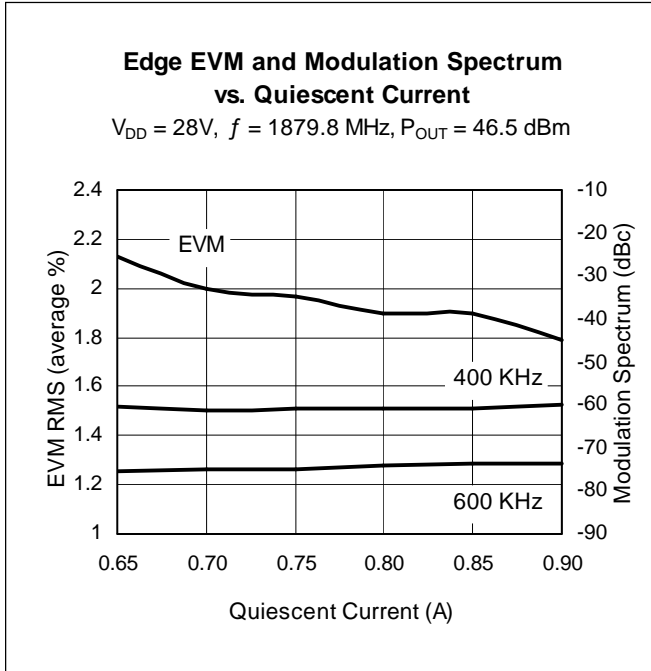
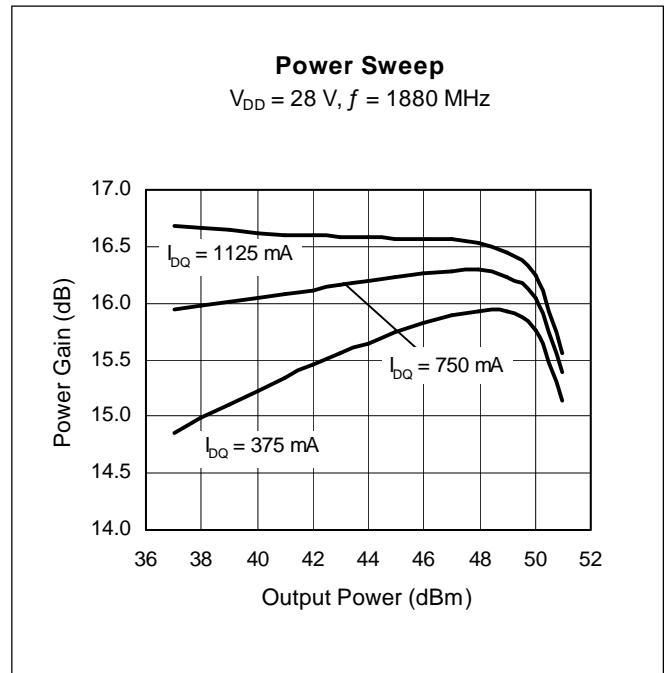
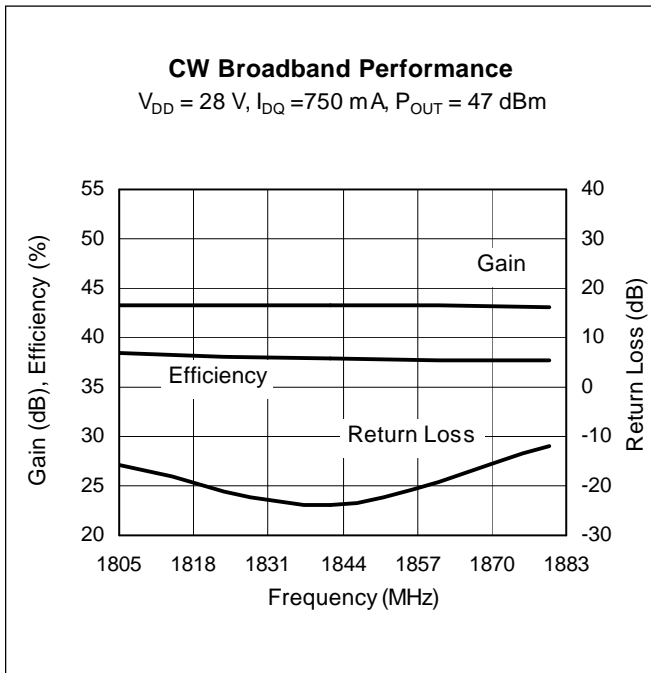
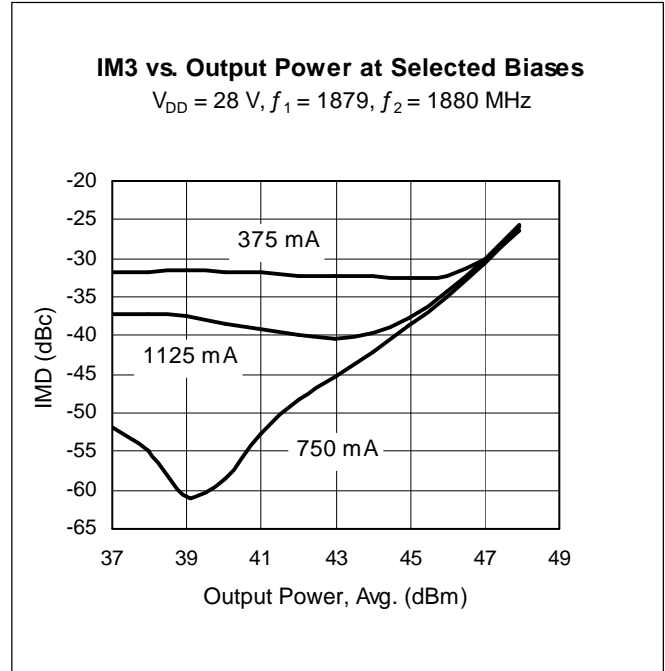
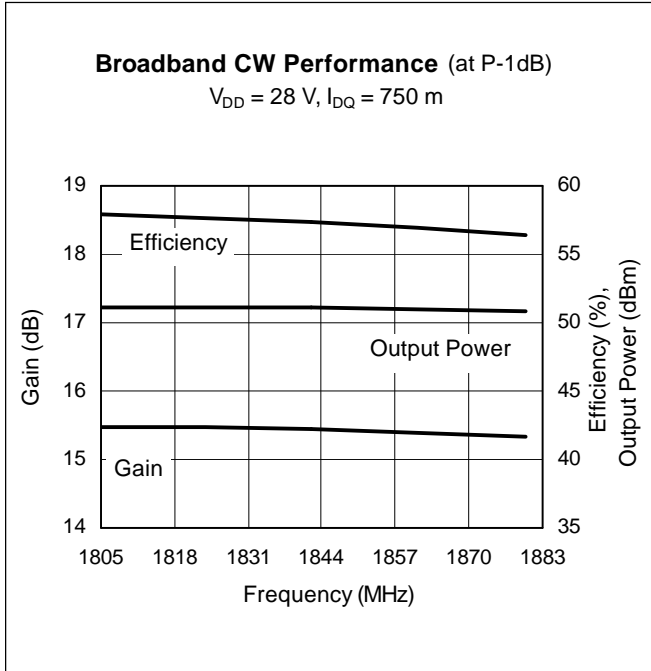


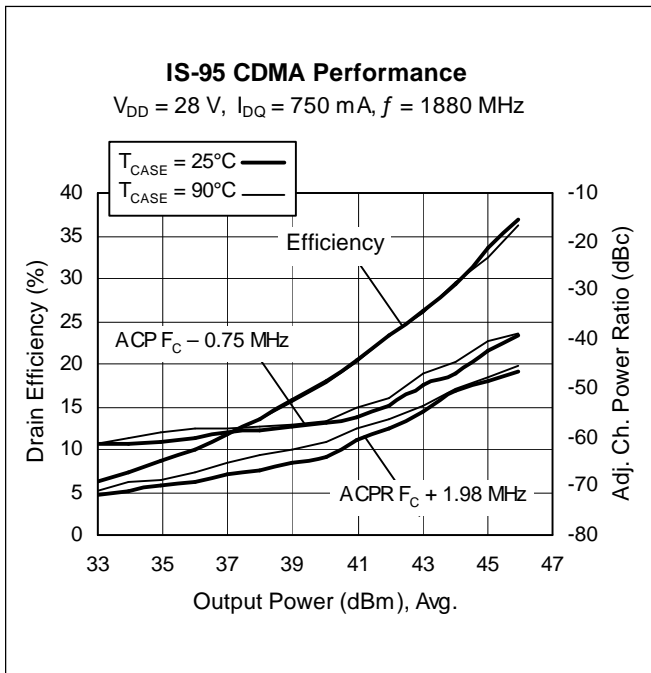
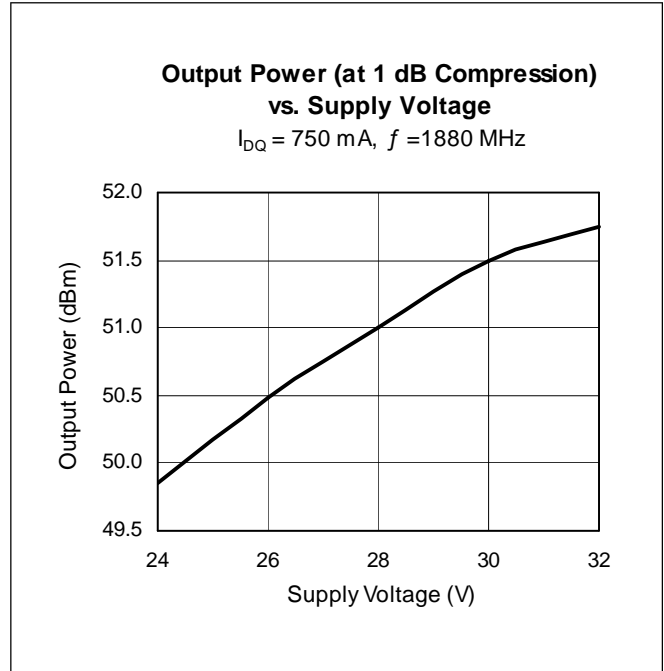
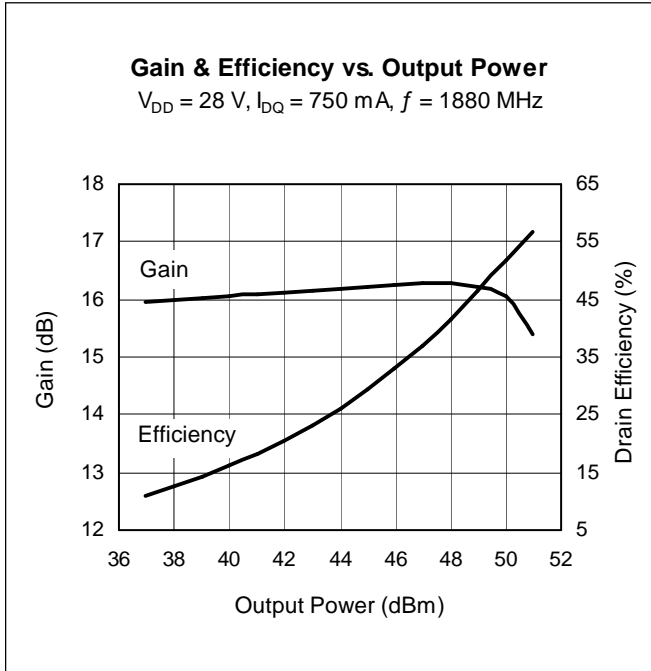
Typical Performance (data taken in a production test fixture)



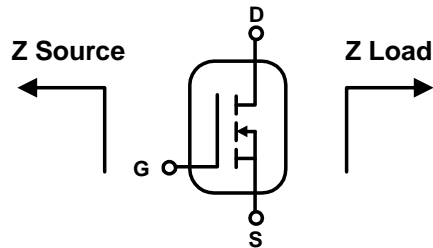
Typical Performance (cont.)



Typical Performance (cont.)



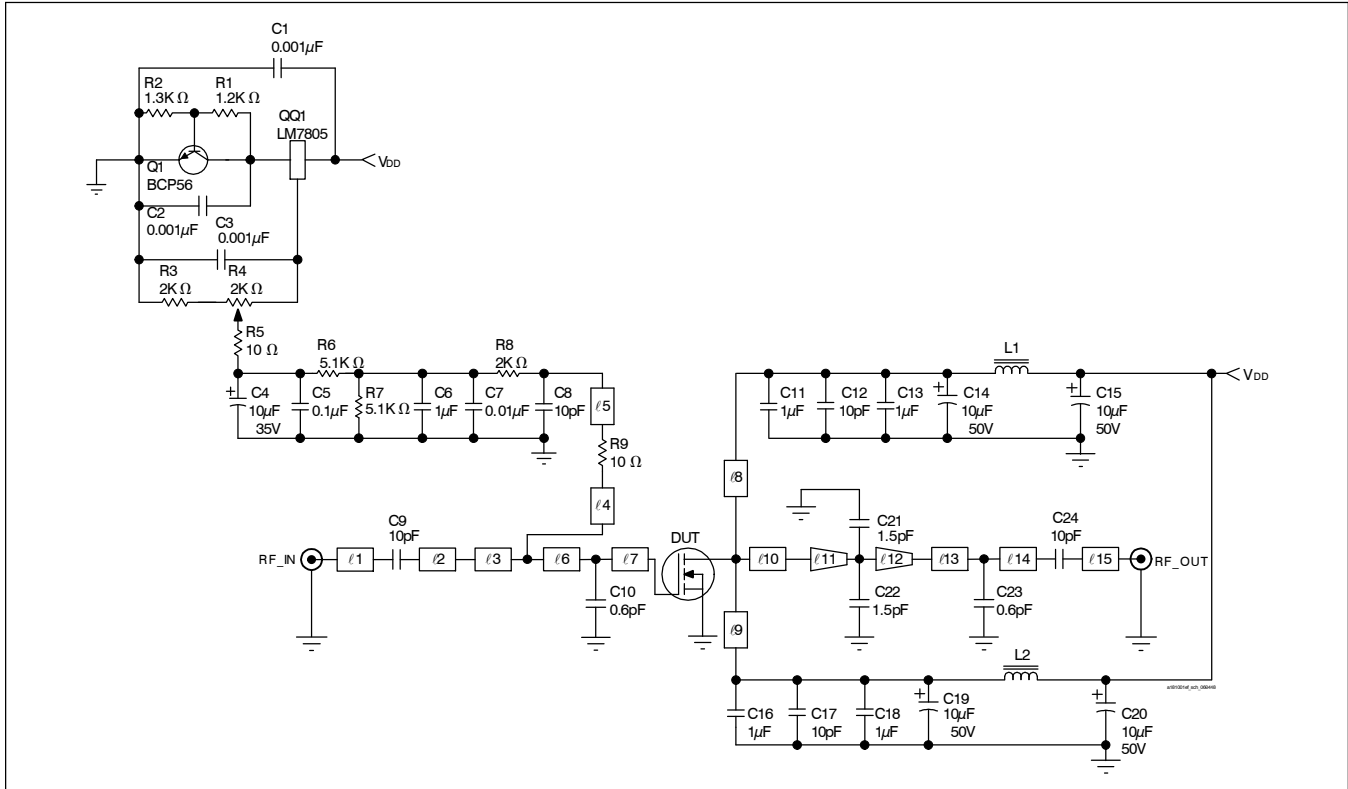
Broadband Circuit Impedance



Frequency MHz	Z Source W		Z Load W	
	R	jX	R	jX
1805	4.62	-6.23	1.50	-3.87
1830	4.18	-6.10	1.51	-3.46
1850	4.20	-6.13	1.50	-3.16
1860	4.58	-6.20	1.49	-3.00
1880	4.42	-6.36	1.48	-2.62

See next page for reference circuit

Reference Circuit



Reference circuit schematic for $f = 1880 \text{ MHz}$

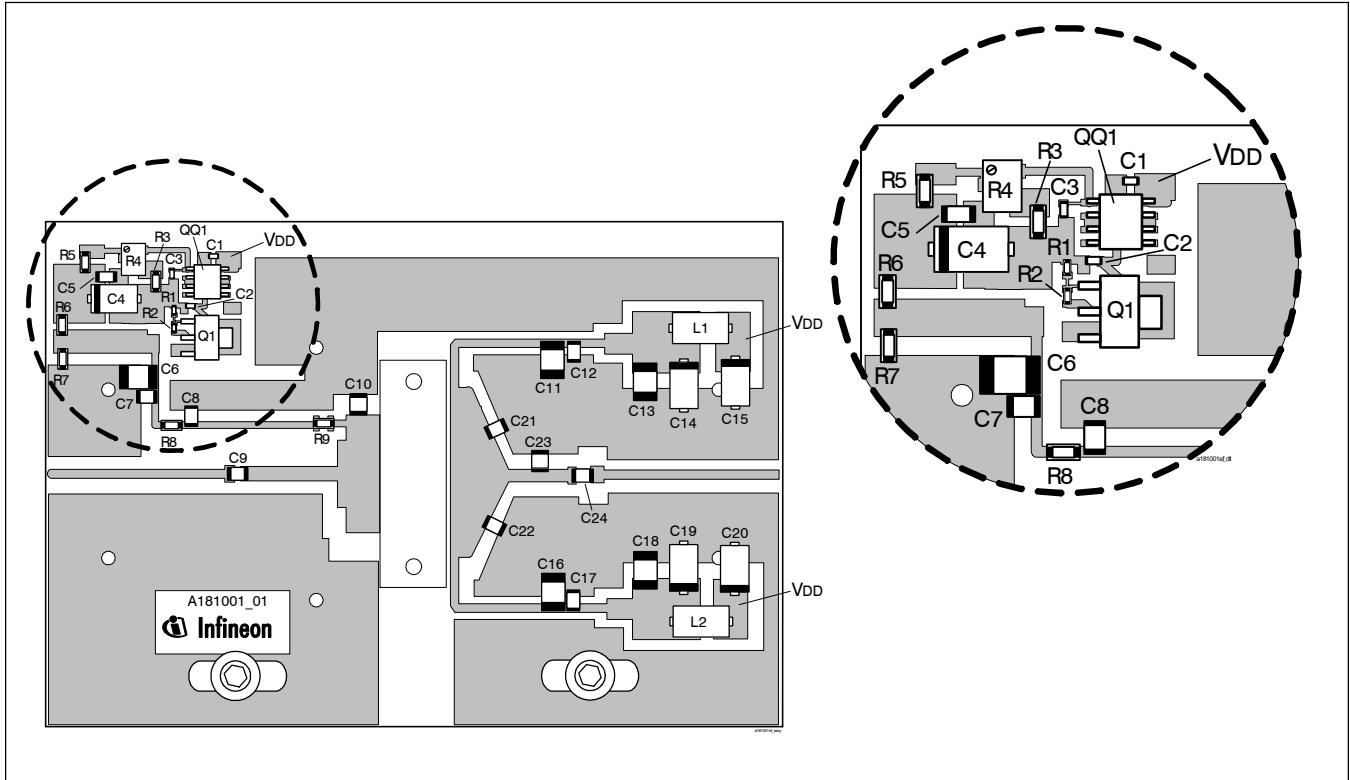
Circuit Assembly Information

DUT	PTFA181001GL or PTFA181001HL	LDMOS Transistor	
PCB	0.76 mm [.030"] thick, $\epsilon_r = 4.5$	Rogers TMM4	2 oz. copper

Microstrip	Electrical Characteristics at 1880 MHz ¹	Dimensions: L x W (mm)	Dimensions: L x W (in.)
l1	0.314 λ , 50.0 Ω	27.43 x 1.37	1.080 x 0.054
l2	0.172 λ , 38.0 Ω	14.73 x 2.16	0.580 x 0.085
l3	0.016 λ , 11.4 Ω	1.27 x 10.16	0.050 x 0.400
l4	0.024 λ , 60.0 Ω	2.24 x 0.99	0.088 x 0.039
l5	0.218 λ , 60.0 Ω	19.33 x 0.99	0.761 x 0.039
l6	0.019 λ , 6.9 Ω	1.52 x 17.78	0.060 x 0.700
l7	0.044 λ , 6.9 Ω	3.43 x 17.78	0.135 x 0.700
l8, l9	0.233 λ , 53.0 Ω	20.45 x 1.24	0.805 x 0.049
l10	0.039 λ , 4.9 Ω	3.10 x 25.65	0.122 x 1.010
l11 (taper)	0.037 λ , 4.9 Ω / 10.3 Ω	2.92 x 25.65 / 11.43	0.115 x 1.010 / 0.450
l12 (taper)	0.033 λ , 10.3 Ω / 41.0 Ω	2.79 x 11.43 / 1.91	0.110 x 0.450 / 0.075
l13	0.069 λ , 41.0 Ω	6.35 x 1.91	0.250 x 0.075
l14	0.038 λ , 41.0 Ω	3.25 x 1.91	0.128 x 0.075
l15	0.331 λ , 50.0 Ω	28.98 x 1.37	1.141 x 0.054

¹Electrical characteristics are rounded.

Reference Circuit (cont.)

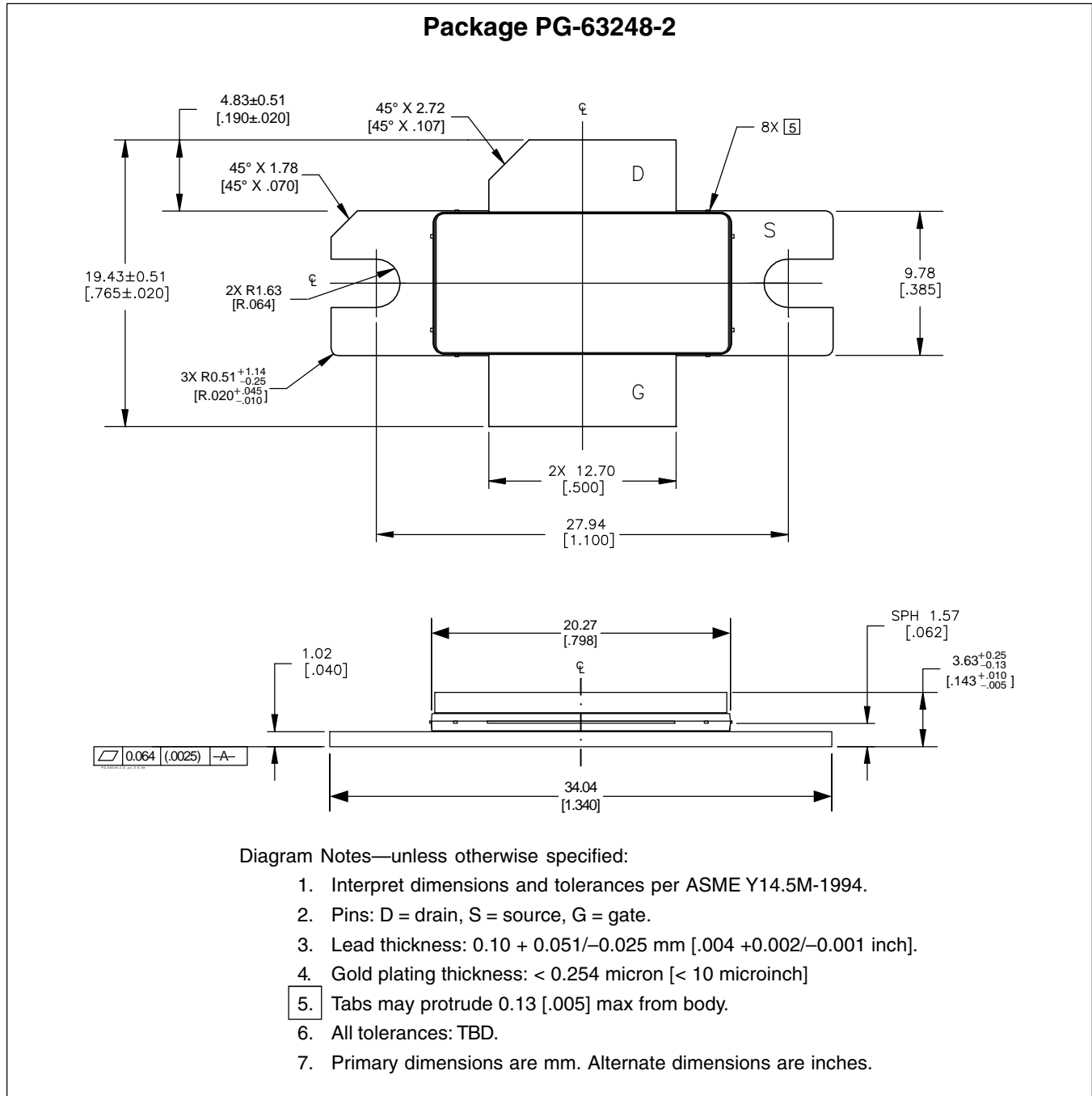


Reference circuit assembly diagram* (not to scale)

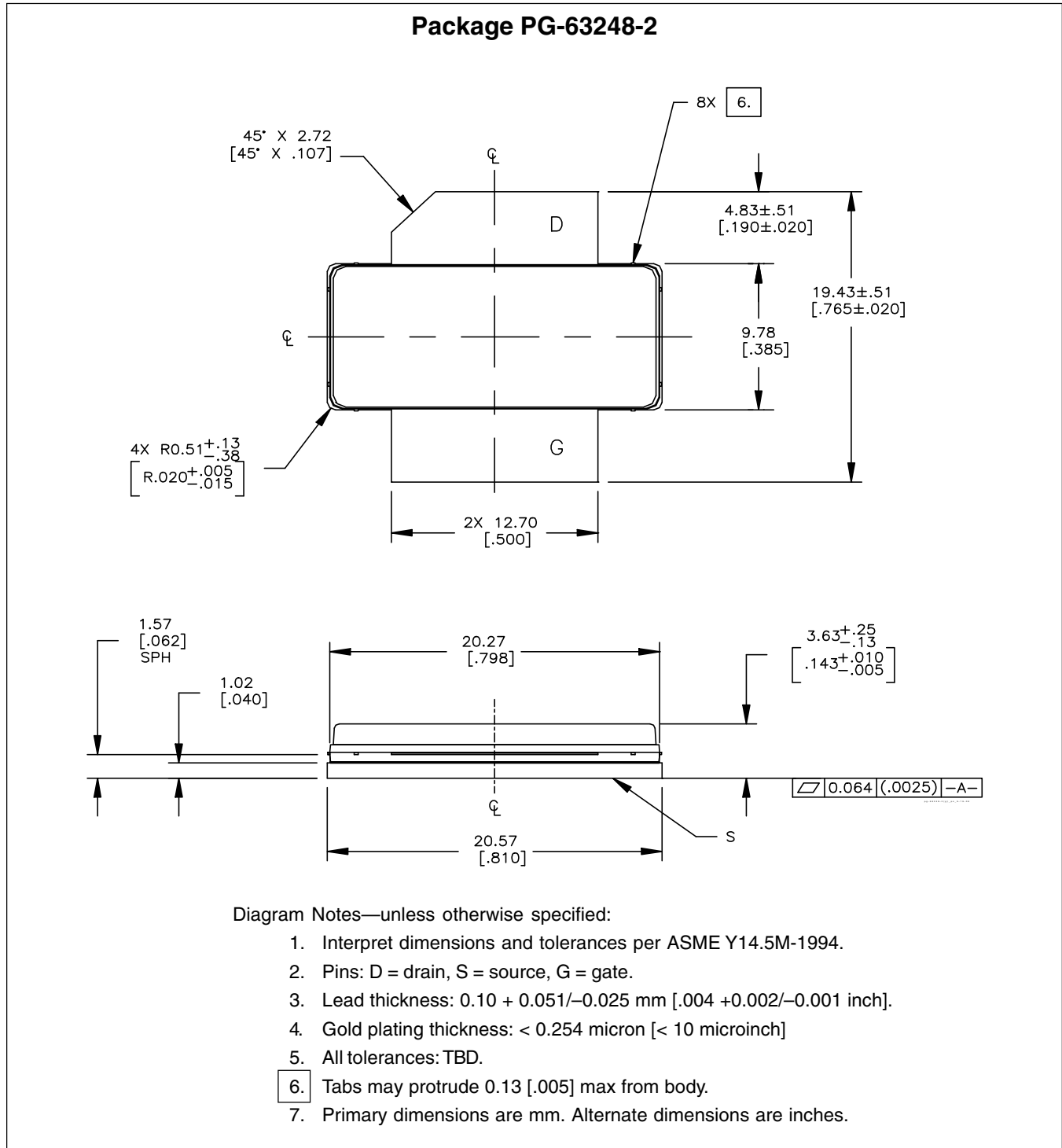
Component	Description	Suggested Manufacturer	P/N or Comment
C1, C2, C3	Capacitor, 0.001 μ F	Digi-Key	PCC1772CT-ND
C4	Tantalum capacitor, 10 μ F, 35 V	Digi-Key	399-1655-2-ND
C5	Capacitor, 0.1 μ F	Digi-Key	PCC104BCT-ND
C6, C11, C13, C16, C18	Capacitor, 1.0 μ F	ATC	920C105
C7	Capacitor, 0.01 μ F	ATC	200B 103
C8, C9, C12, C17, C24	Ceramic capacitor, 10 pF	ATC	100B 100
C10, C23	Ceramic capacitor, 0.6 pF	ATC	100B 0R6
C14, C15, C19, C20	Tantalum capacitor, 10 μ F, 50 V	Garrett Electronics	TPSE106K050R0400
C21, C22	Ceramic capacitor, 1.5 pF	ATC	100B 1R5
L1, L2	Ferrite, 8.9 mm	Elna Magnetics	BDS 4.6/3/8.9-4S2
Q1	Transistor	Infinion Technologies	BCP56
QQ1	Voltage regulator	National Semiconductor	LM7805
R1	Chip Resistor 1.2 k-ohms	Digi-Key	P1.2KGCT-ND
R2	Chip Resistor 1.3 k-ohms	Digi-Key	P1.3KGCT-ND
R3, R8	Chip Resistor 2 k-ohms	Digi-Key	P2KECT-ND
R4	Potentiometer 2 k-ohms	Digi-Key	3224W-202ETR-ND
R5, R9	Chip Resistor 10 ohms	Digi-Key	P10ECT-ND
R6, R7	Chip Resistor 5.1 k-ohms	Digi-Key	P5.1KECT-ND

*Gerber files for this circuit available on request

Package Outline Specifications



Package Outline Specifications (cont.)



Find the latest and most complete information about products and packaging at the Infineon Internet page
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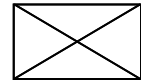
Page	Subjects (major changes since last revision)

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