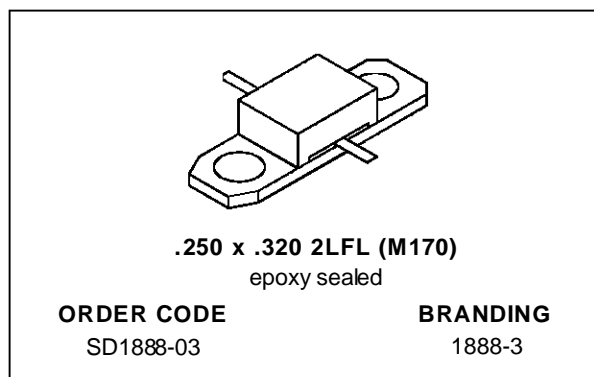


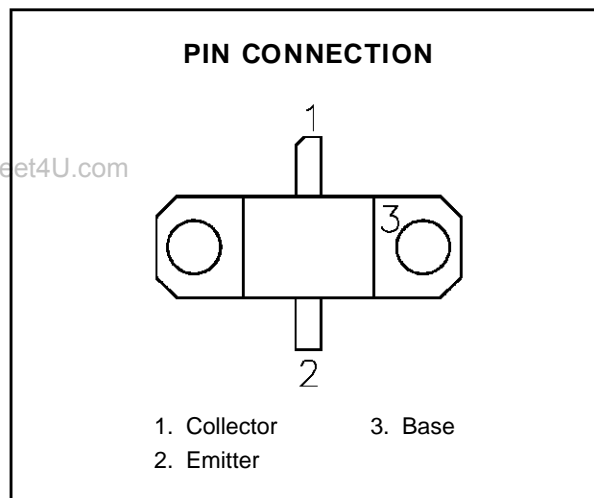
RF & MICROWAVE TRANSISTORS 1.6 GHz SATCOM APPLICATIONS

- 1.65 GHz
- 28 VOLTS
- EFFICIENCY 50% MIN.
- CLASS C OPERATION
- COMMON BASE
- INPUT/OUTPUT MATCHING
- $P_{OUT} = 24 \text{ W MIN. WITH } 9.0 \text{ dB GAIN}$



DESCRIPTION

The SD1888-03 is a 28 V Class C silicon NPN transistor designed for INMARSAT and other 1.65 GHz SATCOM applications. A gold metallized emitter-ballasted die geometry is employed providing high gain and efficiency while ensuring long term reliability and ruggedness under severe operating conditions. SD1888-03 is packaged in a cost-effective epoxy sealed housing



ABSOLUTE MAXIMUM RATINGS ($T_{case} = 25^{\circ}\text{C}$)

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	45	V
V_{CEO}	Collector-Emitter Voltage	12	V
V_{EBO}	Emitter-Base Voltage	3.0	V
I_C	Device Current	2.6	A
P_{DISS}	Power Dissipation	50	W
T_J	Junction Temperature	+200	$^{\circ}\text{C}$
T_{STG}	Storage Temperature	- 65 to +150	$^{\circ}\text{C}$

THERMAL DATA

$R_{TH(j-c)}$	Junction-Case Thermal Resistance	3.5	$^{\circ}\text{C/W}$
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SD1888-03**ELECTRICAL SPECIFICATIONS** ($T_{\text{case}} = 25^{\circ}\text{C}$)

STATIC

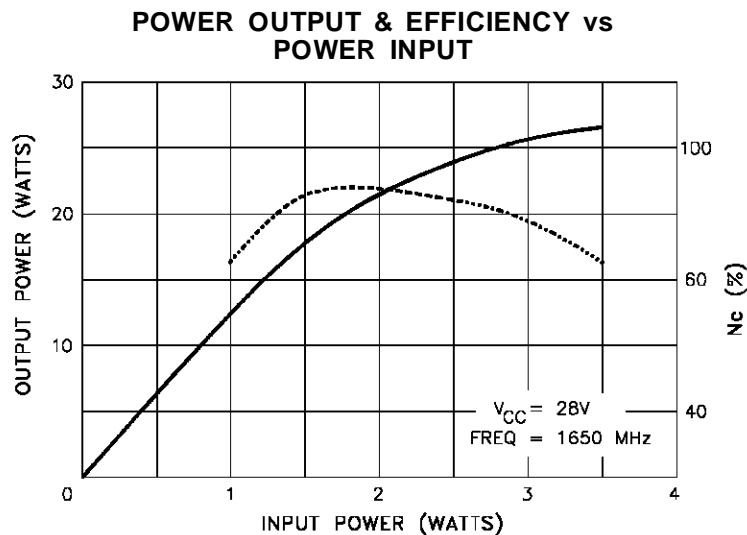
Symbol	Test Conditions		Value			Unit
			Min.	Typ.	Max.	
BV_{CBO}	$I_C = 6 \text{ mA}$	$I_E = 0 \text{ mA}$	45	—	—	V
BV_{CEO}	$I_C = 6 \text{ mA}$	$I_B = 0 \text{ mA}$	12	—	—	V
BV_{EBO}	$I_E = 6 \text{ mA}$	$I_C = 0 \text{ mA}$	3.0	—	—	V
h_{FE}	$V_{CE} = 5 \text{ V}$	$I_C = 1.2 \text{ A}$	15	—	150	—

DYNAMIC

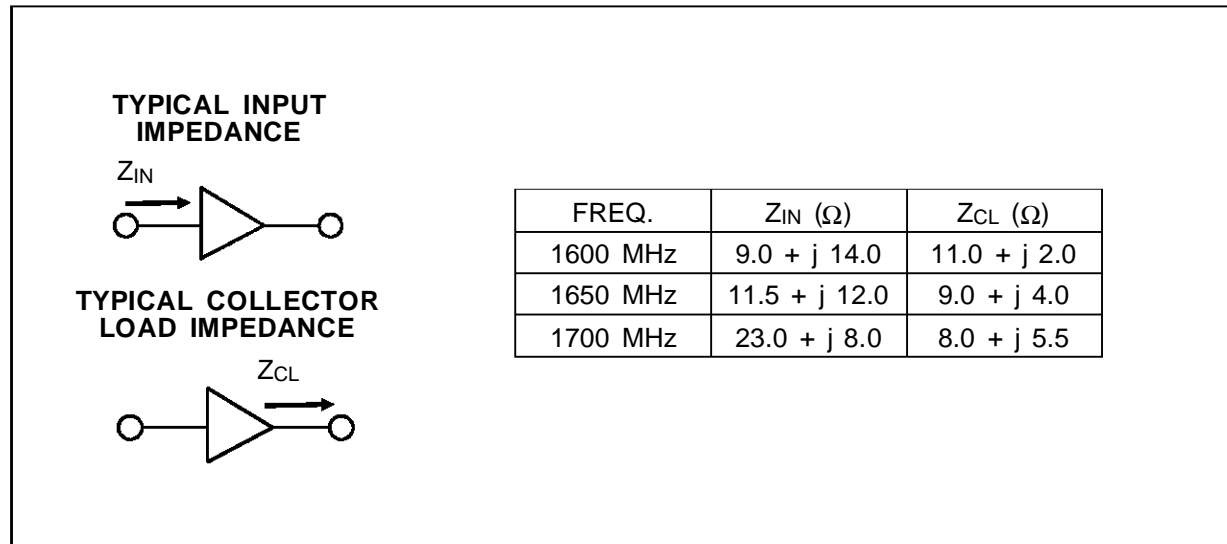
Symbol	Test Conditions			Value			Unit
				Min.	Typ.	Max.	
P_{OUT}	$f = 1.65 \text{ GHz}$	$P_{IN} = 3.0 \text{ W}$	$V_{CE} = 28 \text{ V}$	24	—	—	W
G_P	$f = 1.65 \text{ GHz}$	$P_{IN} = 3.0 \text{ W}$	$V_{CE} = 28 \text{ V}$	9.0	—	—	dB
η_c	$f = 1.65 \text{ GHz}$	$P_{IN} = 3.0 \text{ W}$	$V_{CE} = 28 \text{ V}$	50	—	—	%

TYPICAL PERFORMANCE

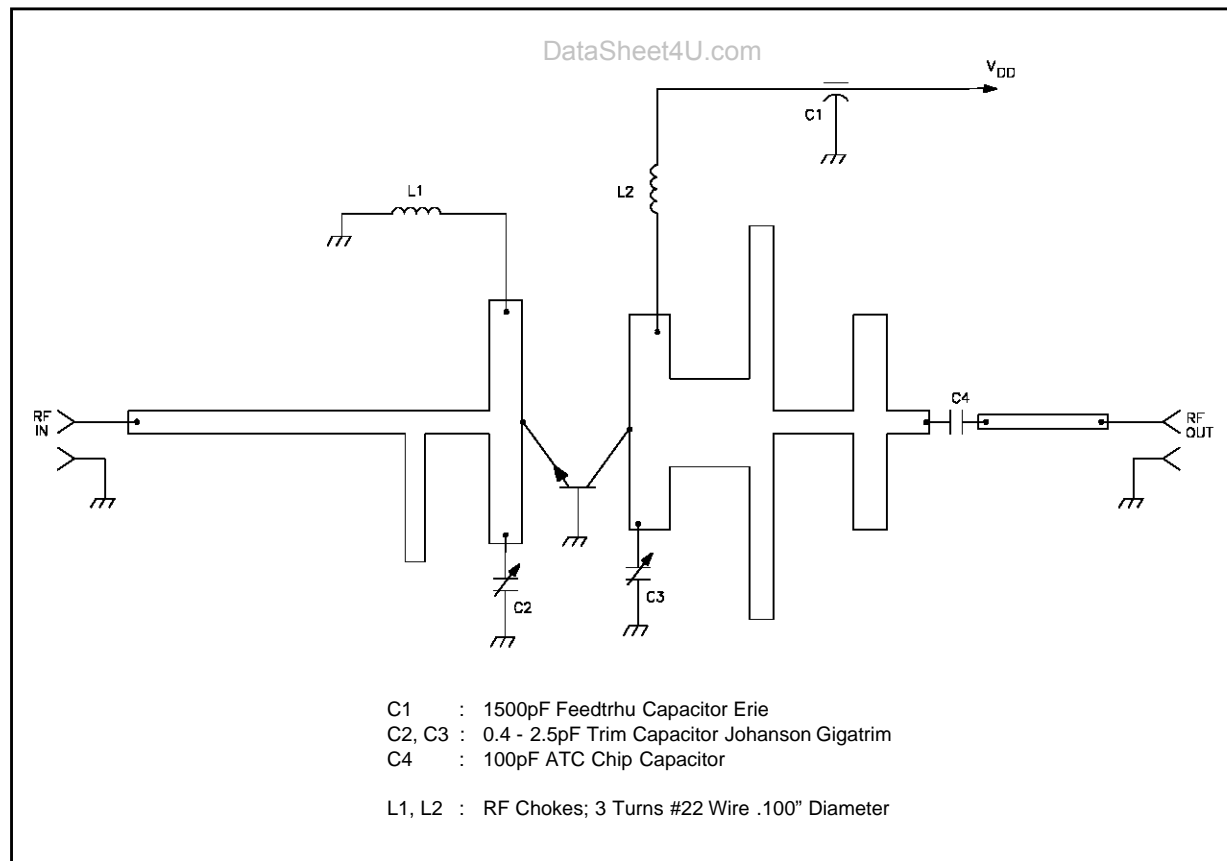
DataSheet4U.com



IMPEDANCE DATA

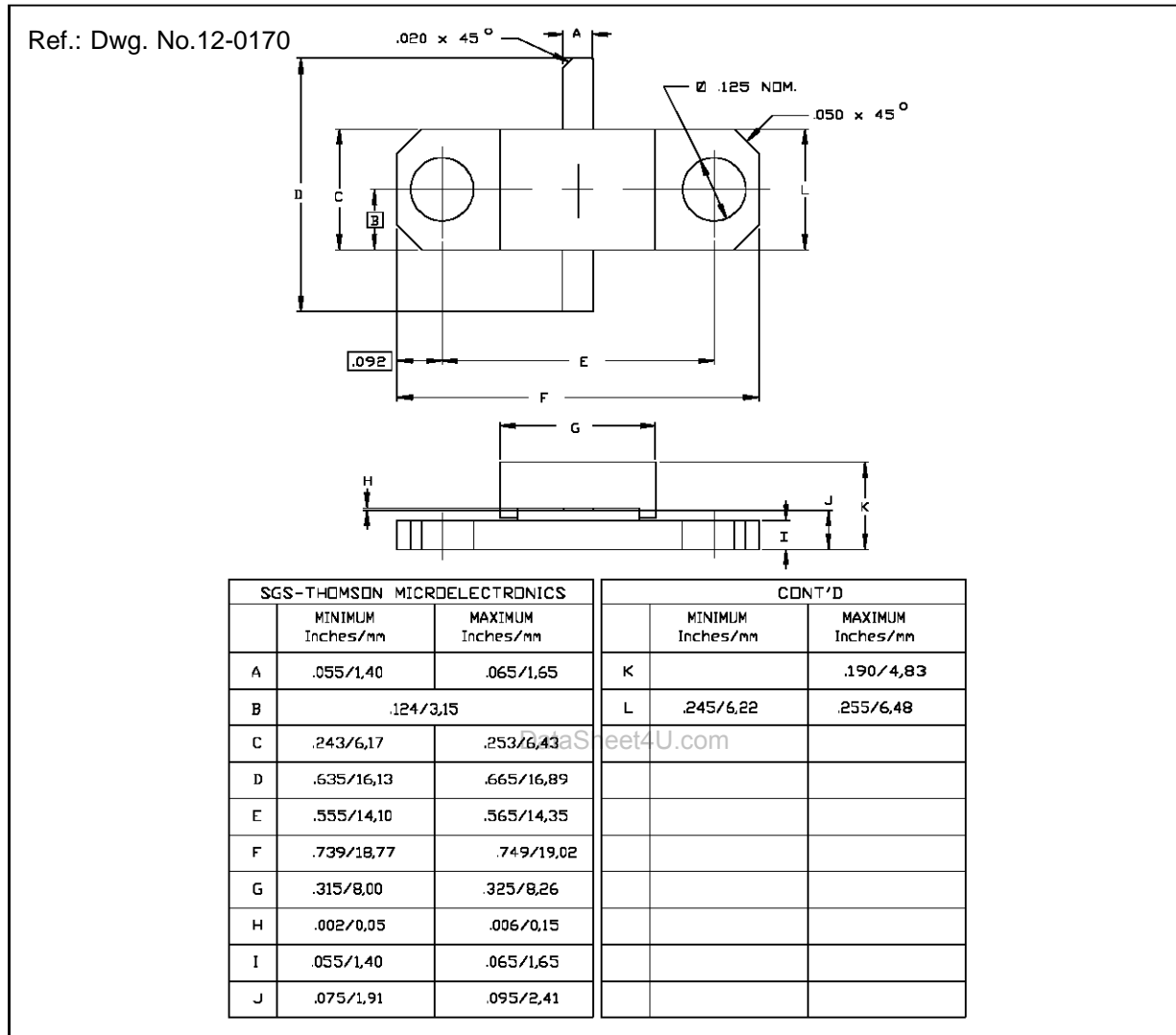


TEST CIRCUIT



SD1888-03

PACKAGE MECHANICAL DATA



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