

SD1420-01

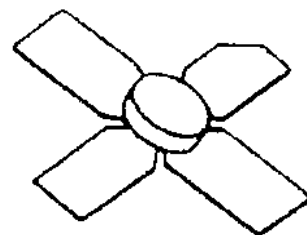
RF AND MICROWAVE TRANSISTORS 800-900 MHz BASE STATION APPLICATIONS

Features

- 860 – 960 MHz
- 24 VOLTS
- COMMON EMITTER
- GOLD METALLIZATION
- CLASS A LINEAR OPERATION
- $P_{OUT} = 0.9 \text{ W MIN.}$
- 9.5 dB GAIN

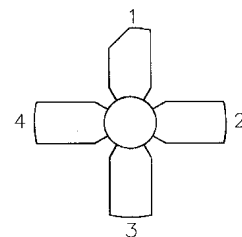
DESCRIPTION:

The SD1420-01 is a gold metallized epitaxial silicon NPN planar transistor designed for high-linearity Class A operation Cellular Base Station applications. The SD1420-01 is also available in a stud package as the SD1420.



.280 4LSL (M123)
epoxy sealed

PIN CONNECTION



1. Collector 3. Base
2. Emitter 4. Emitter

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

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	40	V
V_{CEO}	Collector-Emitter Voltage	28	V
V_{EBO}	Emitter-Base Voltage	3.5	V
I_C	Device Current	.250	A
P_{DISS}	Power Dissipation	7	W
T_J	Junction Temperature	+ 200	$^{\circ}\text{C}$
T_{STG}	Storage Temperature	-55 to +150	$^{\circ}\text{C}$

THERMAL DATA

$R_{TH(j-c)}$	Junction-Case Thermal Resistance	20	$^{\circ}\text{C/W}$
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ELECTRICAL SPECIFICATIONS (Tcase = 25°C)

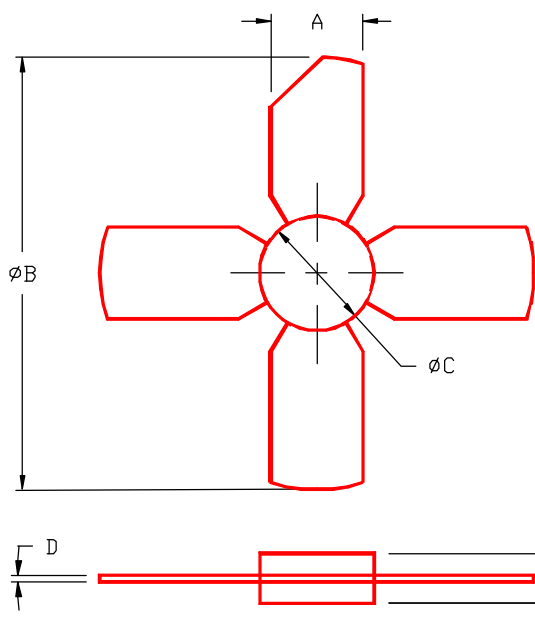
STATIC

Symbol	Test Conditions	Value			Units
		Min.	Typ.	Max.	
BV_{CBO}	I_C = 1 mA	40			V
BV_{CEO}	I_C = 1 mA	28			V
BV_{EBO}	I_E = 1 mA	3.5			V
I_{CES}	V_{CB} = 24 V			.5	mA
h_{FE}	V_{CE} = 5 V I_C = .1 A	20		120	

DYNAMIC

Symbol	Test Conditions	Value			Units
		Min.	Typ.	Max.	
P_{OUT}	f = 960 MHz V_{CE} = 24 V I_{CQ} = 200 mA	2.1			W
G_P	f = 960 MHz V_{CE} = 24 V I_{CQ} = 125 mA	8.9	9.0		dB
C_{OB}	f = 1 MHz V_{CB} = 28 V			5.0	pF

PACKAGE MECHANICAL DATA
PACKAGE STYLE M123



	MINIMUM INCHES/MM	MAXIMUM INCHES/MM		MINIMUM INCHES/MM	MAXIMUM INCHES/MM
A	.220/5,59	.230/5,84			
B	-----	1.055/26,8			
C	.275/6,99	.285/7,24			
D	.004/0,10	.006/0,15			
E	.050/1,27	.060/1,52			
F	.118/3,00	.130/3,30			