

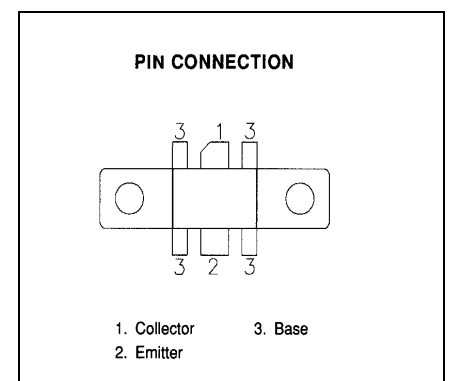
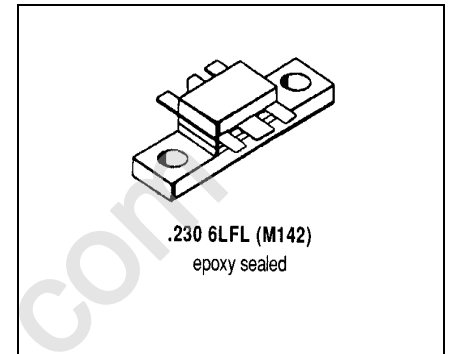
**RF & MICROWAVE TRANSISTORS
800 / 900 MHz APPLICATIONS**

Features

- 960 MHz
- 24 VOLTS
- $P_{OUT} = 30$ WATTS
- $G_p = 7.0$ dB MINIMUM
- INPUT MATCHING
- COMMON BASE CONFIGURATION

DESCRIPTION:

The SD1495-03 is a silicon NPN transistor designed for 900 - 960 MHz base station applications. Gold metalization and internal impedance matching provide superior reliability and consistent broad band performance.



ABSOLUTE MAXIMUM RATINGS (T_{case} = 25°C)

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	50	V
V_{CEO}	Collector-Emitter Voltage	30	V
V_{CES}	Collector-Emitter Voltage	50	V
V_{EBO}	Emitter-Base Voltage	4.0	V
I_C	Device Current	9.0	A
P_{DISS}	Power Dissipation	100	W
T_J	Junction Temperature	+200	°C
T_{STG}	Storage Temperature	-65 to + 150	°C

Thermal Data

$R_{TH(J-C)}$	Thermal Resistance Junction-case	1.5	°C/W
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ELECTRICAL SPECIFICATIONS (T_{case} = 25°C)
STATIC

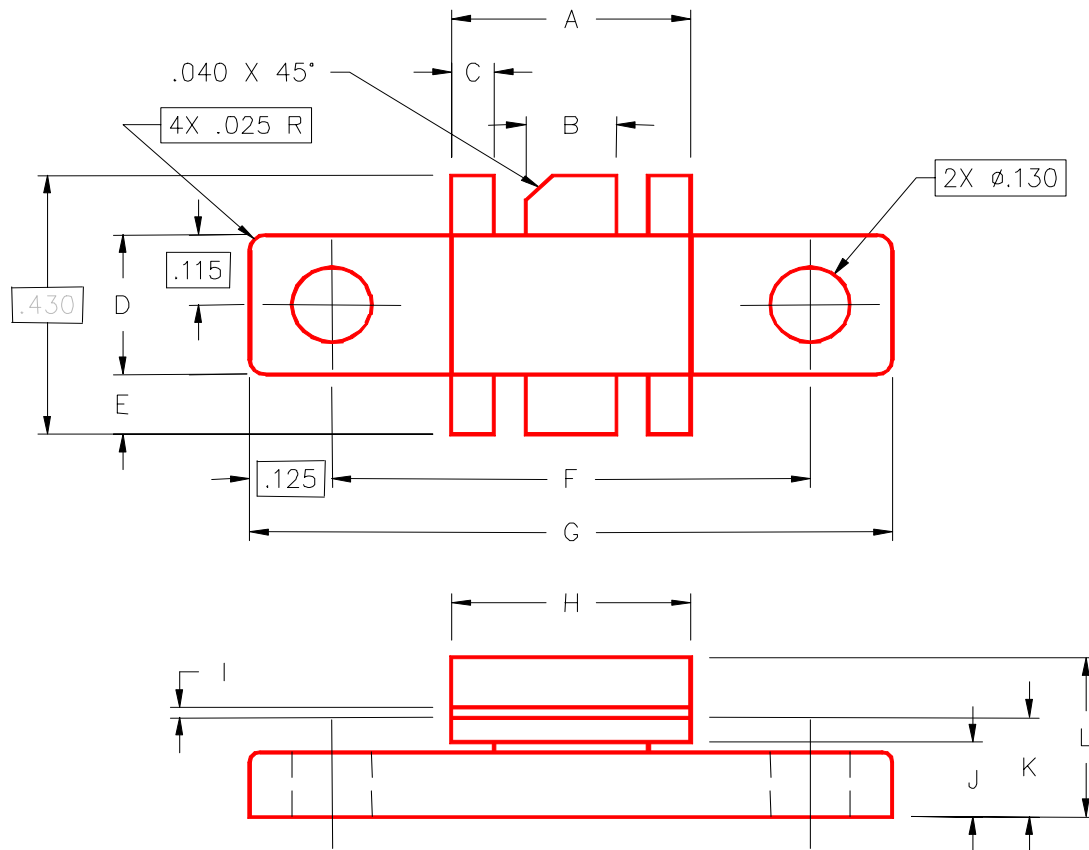
Symbol	Test Conditions		Value			Unit
			Min.	Typ.	Max.	
BV_{CES}	I_C = 50mA	V_{BE} = 0V	50	---	---	V
BV_{CEO}	I_C = 50mA	I_B = 0mA	30	---	---	V
BV_{EBO}	I_E = 10mA	I_C = 0mA	4.0	---	---	V
I_{CBO}	V_{CB} = 15V	I_E = 0mA	---	---	5	mA
HFE	V_{CE} = 5V	I_C = 1A	10	---	120	---

DYNAMIC

Symbol	Test Conditions			Value			Unit
				Min.	Typ.	Max.	
P_{OUT}	f = 960MHz	P_{IN} = 6.0W	V_{CE} = 24V	30	---	---	W
G_P	f = 960MHz	P_{IN} = 6.0W	V_{CE} = 24V	7.0	---	---	dB
η_C	f = 960MHz	P_{IN} = 6.0W	V_{CE} = 24V	50	---	---	%
C_{OB}	f = 1 MHz	V_{CB} = 24V		---	---	55	pf

PACKAGE MECHANICAL DATA

PACKAGE STYLE M142



	MINIMUM INCHES/MM	MAXIMUM INCHES/MM		MINIMUM INCHES/MM	MAXIMUM INCHES/MM
A	.355/9,02	.365/9,27	I	.004/0,10	.006/0,15
B	.115/2,92	.125/3,18	J	.120/3,05	.130/3,30
C	.075/1,91	.085/2,16	K	.160/4,06	.180/4,57
D	.225/5,72	.235/5,97	L	.230/5,84	.260/6,60
E	.090/2,29	.110/2,79			
F	.720/18,29	.730/18,54			
G	.970/24,64	.980/24,89			
H	.355/9,02	.365/9,27			