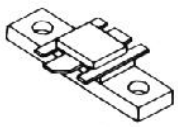
RF Products
Microsemi
Progress Powered by Technology

140 Commerce Drive
Montgomeryville, PA 18936-1013
Tel: (215) 631-9840

SD1495-3

RF & MICROWAVE TRANSISTORS 900-960MHz CLASS C, BASE STATIONS

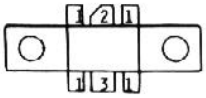
- CLASS C TRANSISTOR
- FREQUENCY 960MHz
- VOLTAGE 24V
- POWER OUT 30.0W
- POWER GAIN 7.0dB
- EFFICIENCY 50%
- COMMON BASE



.230 6LFL (M142)
epoxy sealed

ORDER CODE	BRANDING
SD1495-03	SD1495-3

PIN CONNECTION



S88SD1495.3.01

1 base
2 collector
3 emitter

DESCRIPTION

The SD1495-3 is a 24V epitaxial silicon NPN planar transistor designed primarily for amplifier applications in the 900-960MHz frequency range. Internal input matching and common base configuration assure optimum gain and efficiency across the entire frequency band.

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	V
I_C	Collector Current	9	A
P_{tot}	Total Power Dissipation	100	W
T_{stg}	Storage Temperature	– 65 to 150	°C
T_j	Junction Temperature	200	°C

THERMAL DATA

$R_{th(j-c)}$	Junction-case Thermal Resistance	1.5	°C/W

ELECTRICAL CHARACTERISTICS (T_{case} = 25°C)

STATIC

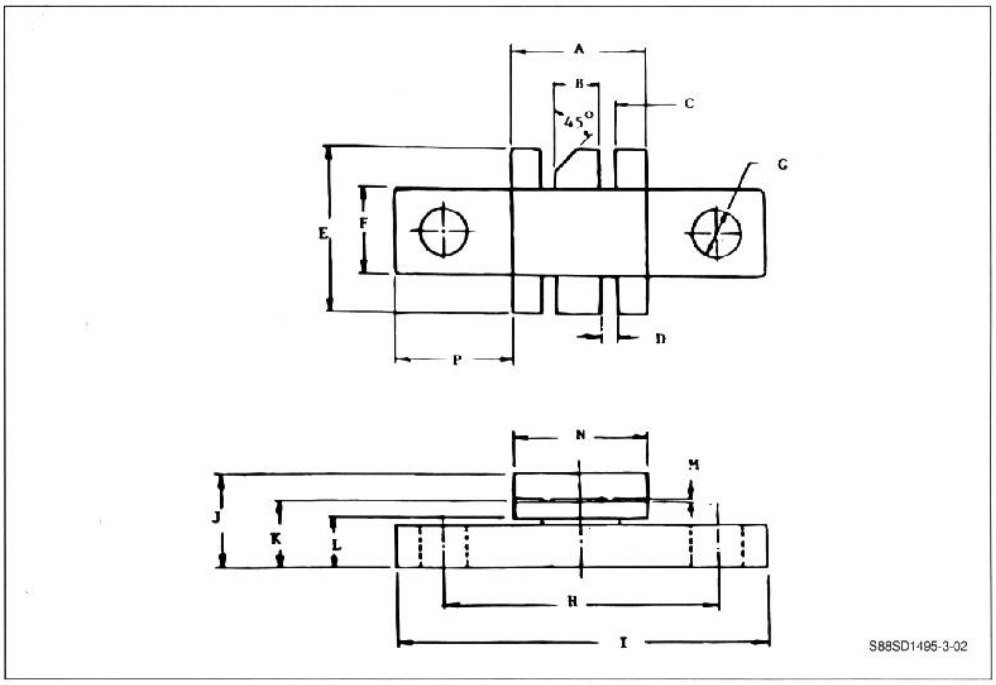
Symbol	Test Conditions		Value			Unit
			Min.	Typ.	Max.	
BV_{CES}	I_C = 50mA	V_{BE} = 0V	50			V
BV_{CEO}	I_C = 50mA	I_B = 0	30			V
BV_{EBO}	I_E = 10mA	I_C = 0	4			V
I_{CBO}	V_{CB} = 15V	I_E = 0			5	mA
h_{FE}	V_{CE} = 5V	I_C = 1A	10		120	

DYNAMIC

Symbol	Test Conditions		Value			Unit
			Min.	Typ.	Max.	
P_O	f = 960MHz	V_{CE} = 24V	30			W
G_P	f = 960MHz	V_{CE} = 24V	7			dB
η_C	f = 960MHz	V_{CE} = 24V		50		%
C_{ob}	f = 1MHz	V_{CE} = 24V		55		pF

PACKAGE MECHANICAL DATA

.230 6LFL



	Minimum Inch/mm	Maximum Inch/mm
A	.355/9.01	.365/9.27
B	.115/2.92	.125/3.18
C	.075/1.91	.085/2.16
D	.035/0.89	.045/1.14
E	.425/10.80	.435/11.05
F	.225/5.72	.235/5.97
G	.115/2.92	.130/3.30
H	.720/18.29	.730/18.54

	Minimum Inch/mm	Maximum Inch/mm
I	.970/24.64	.980/24.89
J	.230/5.84	.260/6.60
K	.155/3.94	.175/4.45w
L	.120/3.05	.130/3.30
M	.004/0.10	.006/0.15
N	.345/8.76	.360/9.14
P	.300/7.62	.314/7.98