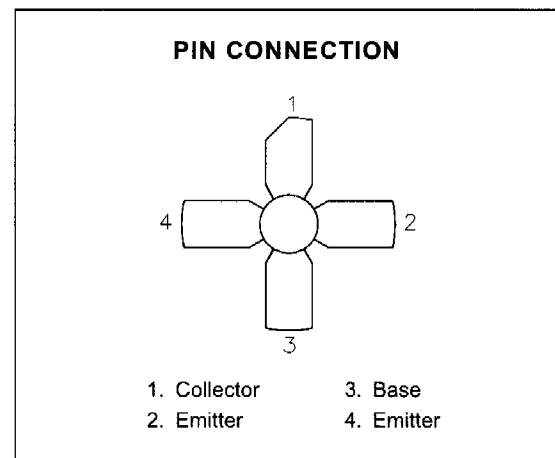
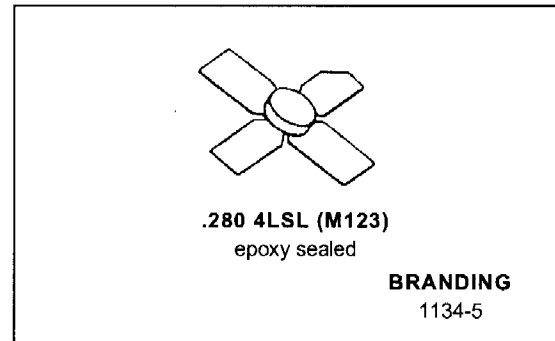


SD1134-05

RF & MICROWAVE TRANSISTORS VHF PORTABLE/MOBILE APPLICATIONS

- 175 MHz
- 7.5 VOLTS
- COMMON EMITTER
- $P_{OUT} = 0.5 \text{ W MIN. WITH } 7.0 \text{ dB GAIN}$



DESCRIPTION

The SD1134-05 is a 7.5 V epitaxial silicon NPN planar transistor designed primarily for VHF communications. It with stands very high VSWR under rated operating conditions.

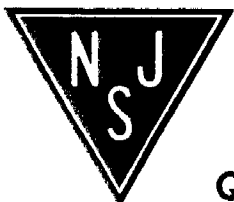
ABSOLUTE MAXIMUM RATINGS ($T_{case} = 25^{\circ}\text{C}$)

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	36	V
V_{CER}	Collector-Emitter Voltage	16	V
V_{CES}	Collector-Emitter Voltage	36	V
V_{EBO}	Emitter-Base Voltage	4.0	V
I_C	Device Current	0.75	A
P_{DISS}	Power Dissipation	5.0	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	35	$^{\circ}\text{C/W}$
---------------	----------------------------------	----	----------------------

NJ Semi-Conductors reserves the right to change test conditions, parameter limits and package dimensions without notice. Information furnished by NJ Semi-Conductors is believed to be both accurate and reliable at the time of going to press. However, NJ Semi-Conductors assumes no responsibility for any errors or omissions discovered in its use. NJ Semi-Conductors encourages customers to verify that datasheets are current before placing orders.



SD1134-05

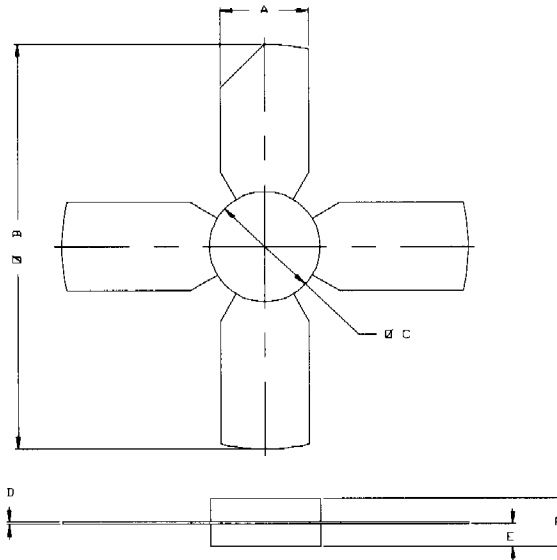
ELECTRICAL SPECIFICATIONS ($T_{case} = 25^{\circ}C$)

STATIC

Symbol	Test Conditions		Value			Unit
			Min.	Typ.	Max.	
BV_{CES}	$I_C = 5mA$	$V_{BE} = 0V$	36	—	—	V
BV_{CEO}	$I_C = 25mA$	$I_B = 0mA$	16	—	—	V
BV_{EBO}	$I_E = 1mA$	$I_C = 0mA$	4.0	—	—	V
I_{CER}	$V_{CE} = 10V$	$R_{BE} = 80\Omega$	—	—	0.5	mA
I_{CBO}	$V_{CB} = 15V$	$I_E = 0mA$	—	—	1.0	mA
h_{FE}	$V_{CE} = 5V$	$I_C = 100mA$	40	—	200	—

DYNAMIC

Symbol	Test Conditions		Value			Unit
			Min.	Typ.	Max.	
P_{OUT}	$f = 150\text{ MHz}$	$V_{CC} = 7.5\text{ V}$	1.4	—	—	W
G_P	$f = 150\text{ MHz}$	$V_{CC} = 7.5\text{ V}$	11.5	—	—	dB
C_{OB}	$f = 1\text{ MHz}$	$V_{CB} = 7.5\text{ V}$	—	6.0	—	pF



SGS-THOMSON MICROELECTRONICS		
	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