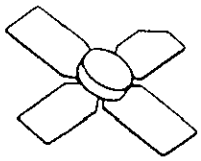
SGS-THOMSON MICROELECTRONICS

SD1134-05

RF & MICROWAVE TRANSISTORS VHF PORTABLE/MOBILE APPLICATIONS

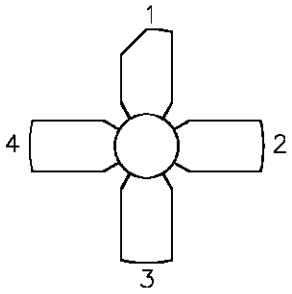
- 175 MHz
- 7.5 VOLTS
- COMMON EMITTER
- P_{OUT} = 0.5 W MIN. WITH 7.0 dB GAIN



.280 4LSL (M123)
epoxy sealed

ORDER CODE	BRANDING
SD1134-05	1134-5

PIN CONNECTION



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

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°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	°C
T_{STG}	Storage Temperature	– 65 to +150	°C

THERMAL DATA

$R_{TH(j-c)}$	Junction-Case Thermal Resistance	35	°C/W

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

STATIC

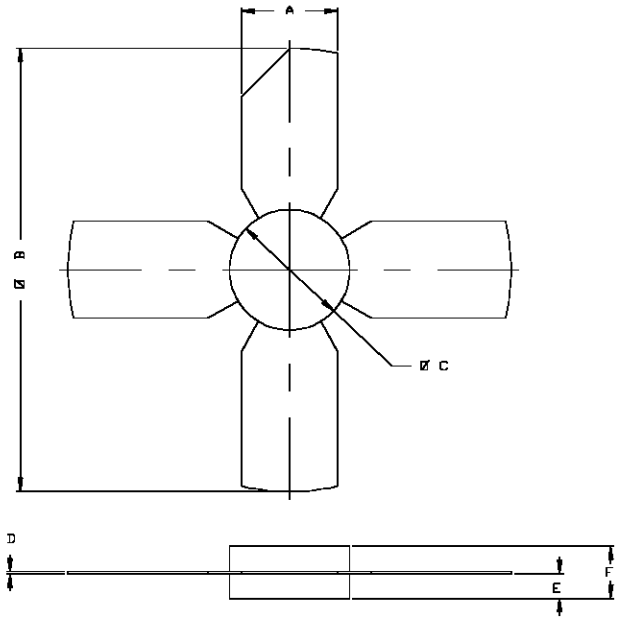
Symbol	Test Conditions		Value			Unit
			Min.	Typ.	Max.	
BV_{CES}	I_C = 5mA	V_{BE} = 0V	36	—	—	V
BV_{CEO}	I_C = 25mA	I_B = 0mA	16	—	—	V
BV_{EBO}	I_E = 1mA	I_C = 0mA	4.0	—	—	V
I_{CER}	V_{CE} = 10V	R_{BE} = 80Ω	—	—	0.5	mA
I_{CBO}	V_{CB} = 15V	I_E = 0mA	—	—	1.0	mA
h_{FE}	V_{CE} = 5V	I_C = 100mA	40	—	200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

DYNAMIC

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

PACKAGE MECHANICAL DATA

Ref.: Dwg. No.12-0123



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	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