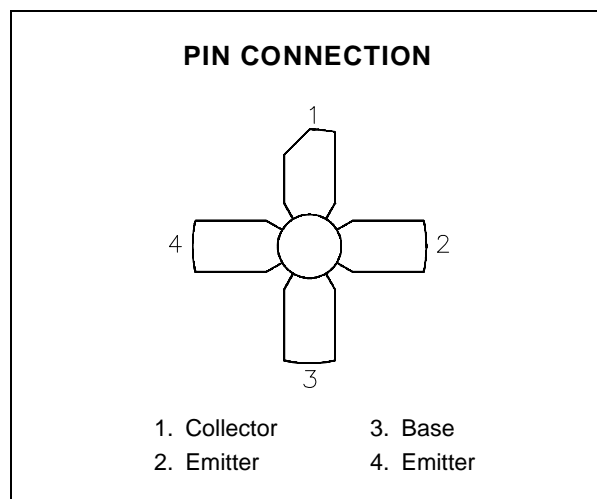
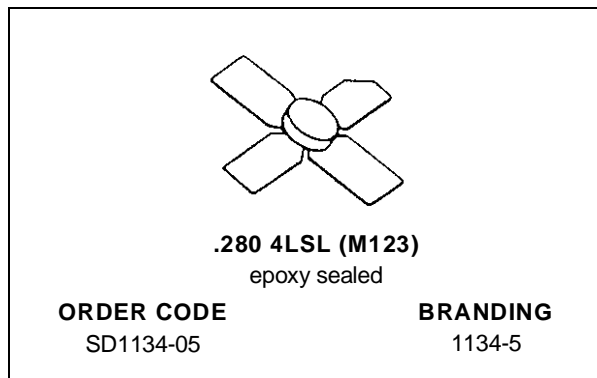


## RF & MICROWAVE TRANSISTORS VHF PORTABLE/MOBILE APPLICATIONS

- 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	$^{\circ}\text{C/W}$
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**SD1134-05****ELECTRICAL SPECIFICATIONS** ( $T_{\text{case}} = 25^{\circ}\text{C}$ )

## STATIC

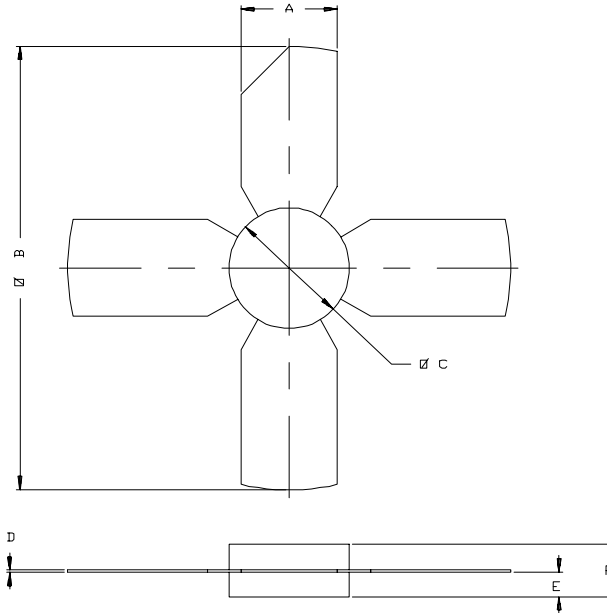
Symbol	Test Conditions		Value			Unit
			Min.	Typ.	Max.	
$BV_{\text{CES}}$	$I_{\text{C}} = 5\text{mA}$	$V_{\text{BE}} = 0\text{V}$	36	—	—	V
$BV_{\text{CEO}}$	$I_{\text{C}} = 25\text{mA}$	$I_{\text{B}} = 0\text{mA}$	16	—	—	V
$BV_{\text{EBO}}$	$I_{\text{E}} = 1\text{mA}$	$I_{\text{C}} = 0\text{mA}$	4.0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

## DYNAMIC

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

## PACKAGE MECHANICAL DATA

Ref.: Dwg. No.12-0123



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

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