

**DESCRIPTION**

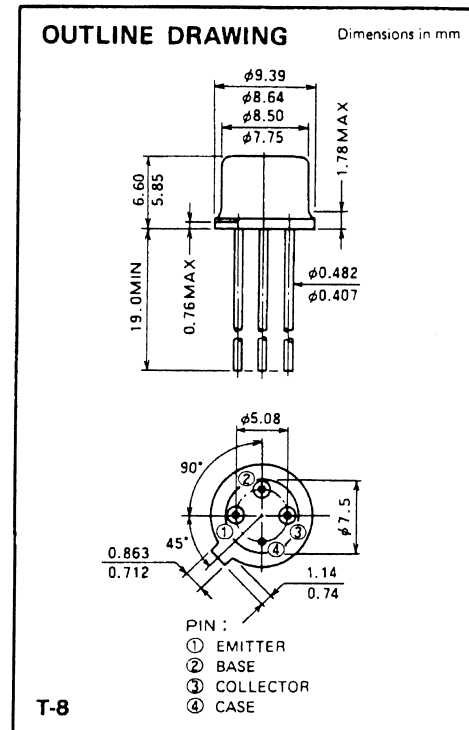
2SC1324 is a silicon NPN epitaxial planar type transistor designed for industrial use RF broadband amplifiers from VHF to UHF band.

**FEATURES**

- High power gain:  $G_{pe} \geq 9dB$   
@  $V_{CC} = 15V, I_C = 30mA, f = 770MHz$
- TO-12 metal sealed package with case grounded pin for high reliability and good performances.
- All electrodes excepted ground pin are isolated from the case.

**APPLICATION**

Broadband amplifiers from VHF to UHF band.



**ABSOLUTE MAXIMUM RATINGS** ( $T_C = 25^\circ C$  unless otherwise specified)

Symbol	Parameter	Conditions	Ratings	Unit
$V_{CBO}$	Collector to base voltage		35	V
$V_{EBO}$	Emitter to base voltage		4	V
$V_{CEO}$	Collector to emitter voltage	$R_{BE} = \infty$	25	V
$I_C$	Collector current		150	mA
$P_C$	Collector dissipation	$T_a = 25^\circ C$	0.8	W
		$T_C = 25^\circ C$	3	W
$T_j$	Junction temperature		175	$^\circ C$
$T_{stg}$	Storage temperature		-65 to 175	$^\circ C$
$R_{th-a}$	Thermal resistance	Junction to ambient	187.5	$^\circ C/W$
$R_{th-c}$		Junction to case	50	$^\circ C/W$

Note. Above parameters are guaranteed independently.

**ELECTRICAL CHARACTERISTICS** ( $T_C = 25^\circ C$  unless otherwise specified)

Symbol	Parameter	Test conditions	Limits			Unit
			Min	Typ	Max	
$V_{(BR)EBO}$	Emitter to base breakdown voltage	$I_E = 1mA, I_C = 0$	4			V
$V_{(BR)CBO}$	Collector to base breakdown voltage	$I_C = 1mA, I_E = 0$	35			V
$V_{(BR)CEO}$	Collector to emitter breakdown voltage	$I_C = 10mA, R_{BE} = \infty$	25			V
$I_{CBO}$	Collector cutoff current	$V_{CB} = 25V, I_E = 0$			50	$\mu A$
$I_{EBO}$	Emitter cutoff current	$V_{EB} = 3V, I_C = 0$			75	$\mu A$
$h_{FE}$	DC forward current gain *	$V_{CE} = 15V, I_C = 30mA$	20	70	180	—
$G_{pe}$	Power gain	$V_{CC} = 15V, f = 770MHz, I_C = 30mA$	9	10		dB
$f_T$	Transition frequency	$V_{CE} = 15V, I_C = 30mA$		1.7		GHz
NF	Noise figure	$V_{CC} = 15V, I_C = 30mA, f = 500MHz, R_G = 50\Omega$		5		dB

Note \* Pulse test.  $P_w = 150\mu s$ , duty=5%.  
Above parameters, ratings, limits and conditions are subject to change.

