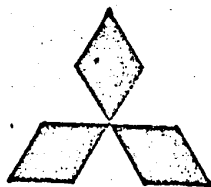


mitsubishi silicon transistor



MITSUBISHI ELECTRIC CORP.

RF POWER TRANSISTOR

2SC2312

27MHz, 12V, 17W

NPN Epitaxial Planar Type

GENERAL DISCRIPTION

MITSUBISHI 2SC2312 is a silicon NPN epitaxial planar type transistor specifically designed for linear amplifiers operating in HF band.

FEATURES

1. High Output, High Gain : $P_o=17W$, $G_{pe}=10.5dB$; @27MHz, 12V
2. Low IMD. 3rd; $-30dB(TYP)$, 11th; $-62dB(TYP)$, and higher order IMD bellow than $-65dB$. @ $V_{cc}=13.5V$, $P_o=14W$
3. Convenient plastic molded package.

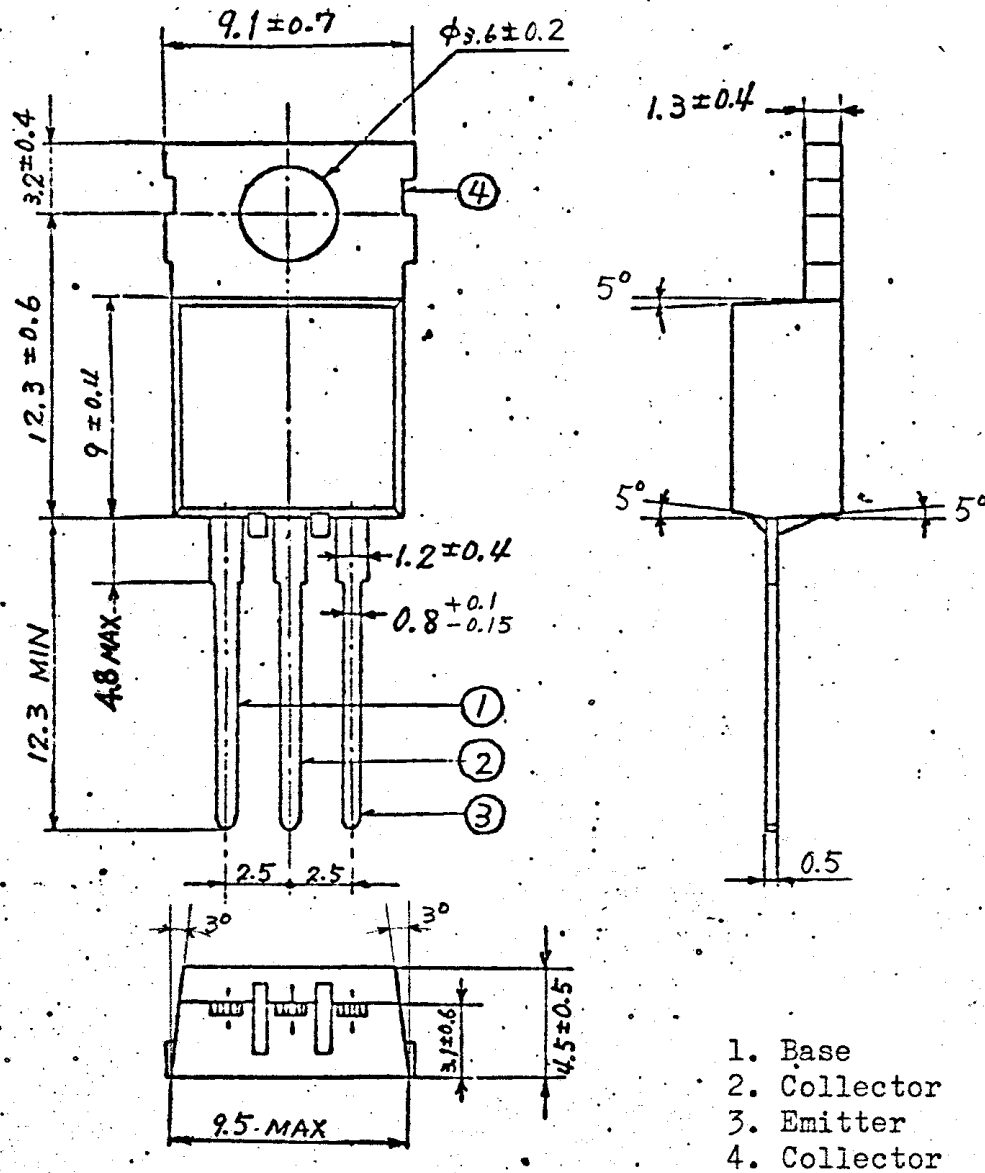
APPLICATIONS

Especially suitable for the output stage of 27MHz 4W AM/ 12W SSB transceiver sets.

TRANSISTOR SPEC. SHEET	DRAWN	Y. Miyaji, M. Koyama								
	APPROVED	K. Kikunoki '77-7								
Type	2SC2312									
Application	RF - Power Amplification									
Structure	Silicon NPN Epitaxial Planar Type									
Outline	See Fig. 1									
	V_{CEQ}	V_{EBQ}	V_{CEO}	I_C	I	P_C	P	T_j	T_{Stg}	T_a
			$R_{BE}=\infty$			$T_c=25^\circ C$				$25 \pm 3^\circ C$
Max. Ratings	60 V	5 V	20 V	6 A	A	25 W	W	+150°C	-55 ~ +150°C	
Characteristics	Symbol	Test Conditions					Limits			Unit
							Min.	Typ.	Max.	
Emitter to Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E = 5mA$					5			V
Collector to Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C = 1mA$					60			V
Collector to Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = 10mA$					20			V
Collector to Cutoff Current	I_{CBO}	$V_{CB} = 30V$							500	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB} = 4V$							100	μA
DC Forward Current Transfer Ratio	h_{FE}	$V_{CE} = 12V, I_C = 100mA$					20	50	180	-
Output Power	P_o	$V_{CC} = 12V, f = 27MHz$					17	18.5		W
Collector Efficiency	η_c	$P_{in} = 1.5W$					60	70		%

MITSUBISHI SILICON RF POWER TRANSISTOR
2SC2312

Fig. 1 Outline Drawing



All dimensions in mm