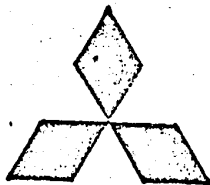


MITSUBISHI SILICON TRANSISTOR



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.

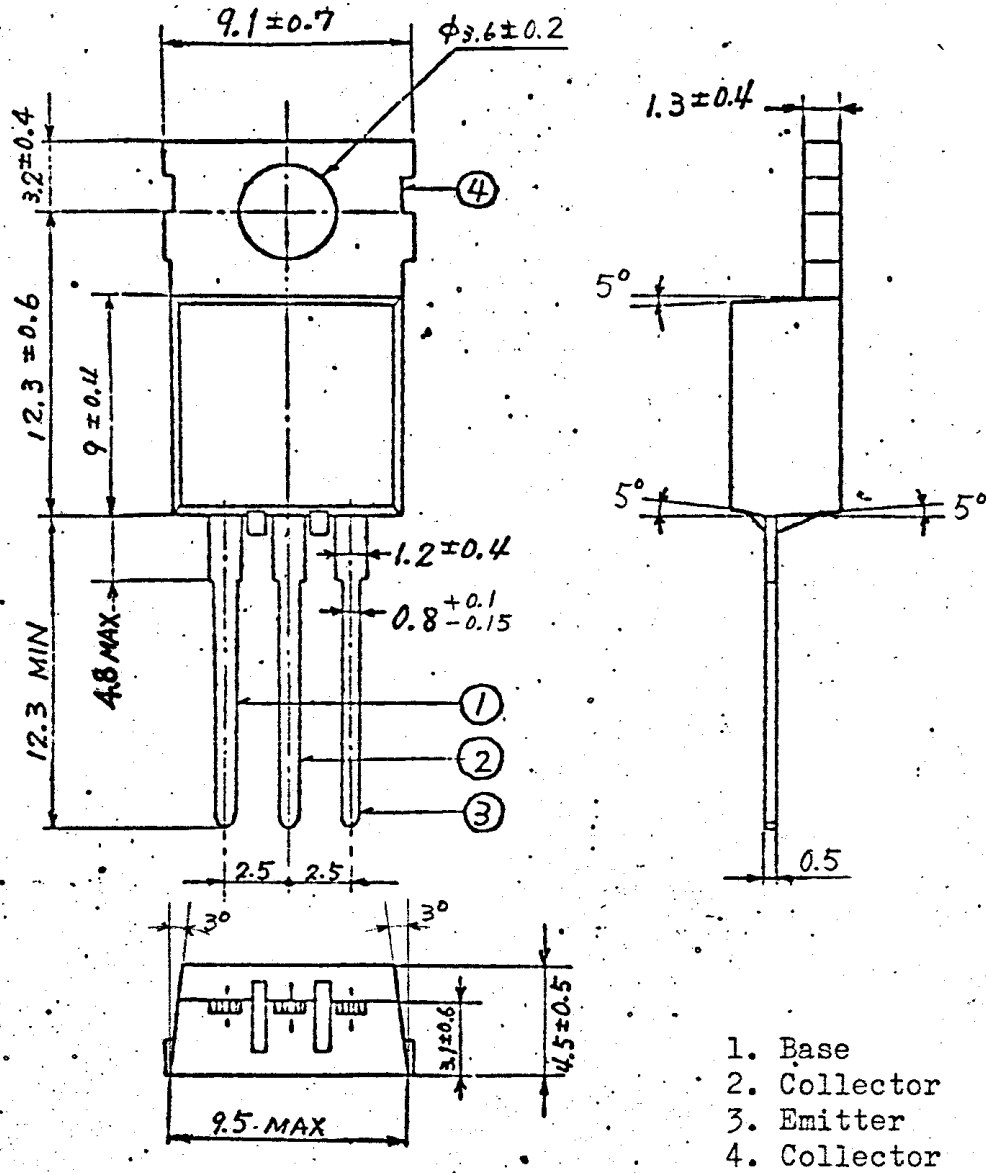
APPLICATIONS

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

TRANSISTOR SPEC. SHEET	DRAWN	Y. Miyaji, M. Kouma									
	APPROVED	K. Kizumaki '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_{EBO}	P_C	P_{EBO}	T_j	T_{Stg}	T_a	
			RBE= ∞			$T_c=25^\circ C$				$25 \pm 3^\circ C$	
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		%					

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2SC2312

Fig. 1 Outline Drawing



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

All dimensions in mm