# 2SC2462

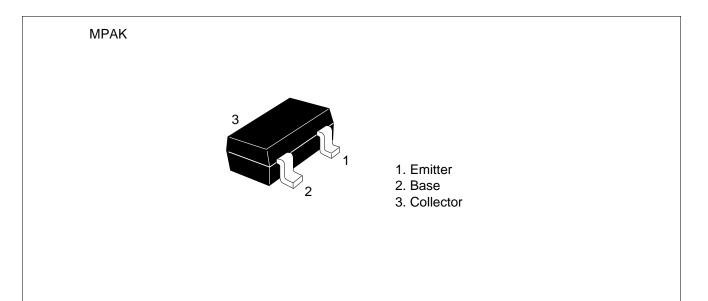
Silicon NPN Epitaxial

# HITACHI

### Application

Low frequency amplifier

#### Outline





# 2SC2462

# **Absolute Maximum Ratings** (Ta = $25^{\circ}$ C)

Item	Symbol	Ratings	Unit
Collector to base voltage	V <sub>CBO</sub>	50	V
Collector to emitter voltage	V <sub>CEO</sub>	40	V
Emitter to base voltage	V <sub>EBO</sub>	5	V
Collector current	l <sub>c</sub>	100	mA
Emitter current	Ι <sub>Ε</sub>	-100	mA
Collector power dissipation	P <sub>c</sub>	150	mW
Junction temperature	Тј	150	°C
Storage temperature	Tstg	–55 to +150	°C

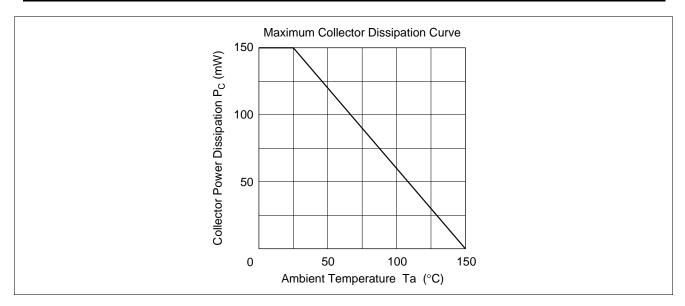
#### **Electrical Characteristics** (Ta = 25°C)

Item		Symbol	Min	Тур	Max	Unit	Test conditions
Collector to l voltage	base breakdown	$V_{(BR)CBO}$	50	_	—	V	$I_{c} = 10 \ \mu A, I_{E} = 0$
Collector to ovoltage	emitter breakdov	n V <sub>(BR)CEO</sub>	40	—	—	V	$I_c = 1 \text{ mA}, R_{BE} = \infty$
Emitter to ba voltage	ase breakdown	$V_{(BR)EBO}$	5	_	_	V	$I_{\rm E} = 10 \ \mu {\rm A}, \ I_{\rm C} = 0$
Collector cut	off current	I <sub>CBO</sub>	_	_	0.5	μΑ	$V_{CB} = 30 \text{ V}, I_{E} = 0$
Emitter cutor	ff current	I <sub>EBO</sub>	_	—	0.5	μΑ	$V_{EB} = 2 V, I_{C} = 0$
DC current t	ransfer ratio	$h_{FE}^{*1}$	100	—	500		$V_{ce} = 12 \text{ V}, I_c = 2 \text{ mA}$
Collector to ovoltage	emitter saturatio	ר V <sub>CE(sat)</sub>	—	_	0.2	V	$I_{c} = 10 \text{ mA}, I_{B} = 1 \text{ mA}$
Base to emit	ter voltage	$V_{\text{BE}}$		—	0.75	V	$V_{ce} = 12 \text{ V}, I_c = 2 \text{ mA}$
Note: 1. 7	The 2SC2462 is	grouped by h	<sub>FE</sub> as fol	llows.			
Grade	В	С	D				
Mark	LB	LC	LD				
h <sub>FE</sub>	100 to 200	160 to 320	250 t	o 500			

See characteristic curves of 2SC458 (LG).

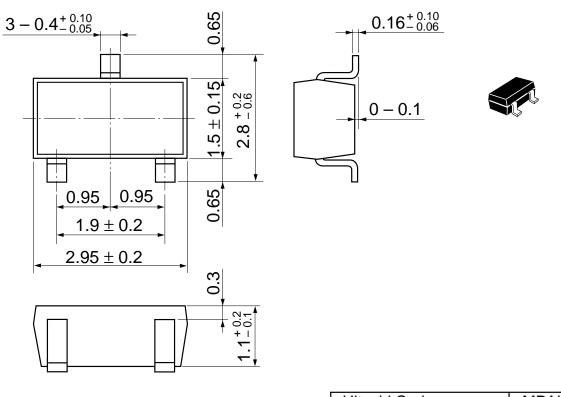
HITACHI

# 2SC2462



#### HITACHI

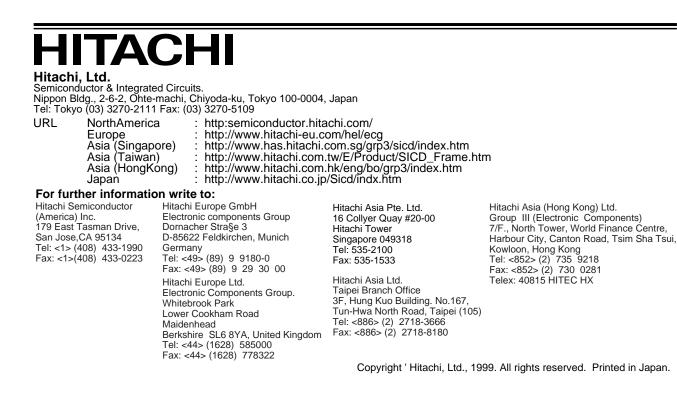
# Unit: mm



Hitachi Code	MPAK
JEDEC	—
EIAJ	Conforms
Weight (reference value)	0.011 g

#### Cautions

- Hitachi neither warrants nor grants licenses of any rights of Hitachi's or any third party's patent, copyright, trademark, or other intellectual property rights for information contained in this document. Hitachi bears no responsibility for problems that may arise with third party's rights, including intellectual property rights, in connection with use of the information contained in this document.
- 2. Products and product specifications may be subject to change without notice. Confirm that you have received the latest product standards or specifications before final design, purchase or use.
- 3. Hitachi makes every attempt to ensure that its products are of high quality and reliability. However, contact Hitachi's sales office before using the product in an application that demands especially high quality and reliability or where its failure or malfunction may directly threaten human life or cause risk of bodily injury, such as aerospace, aeronautics, nuclear power, combustion control, transportation, traffic, safety equipment or medical equipment for life support.
- 4. Design your application so that the product is used within the ranges guaranteed by Hitachi particularly for maximum rating, operating supply voltage range, heat radiation characteristics, installation conditions and other characteristics. Hitachi bears no responsibility for failure or damage when used beyond the guaranteed ranges. Even within the guaranteed ranges, consider normally foreseeable failure rates or failure modes in semiconductor devices and employ systemic measures such as fail-safes, so that the equipment incorporating Hitachi product does not cause bodily injury, fire or other consequential damage due to operation of the Hitachi product.
- 5. This product is not designed to be radiation resistant.
- 6. No one is permitted to reproduce or duplicate, in any form, the whole or part of this document without written approval from Hitachi.
- 7. Contact Hitachi's sales office for any questions regarding this document or Hitachi semiconductor products.



#### HITACHI