# **ISA1399AS1**

7.5MAX

0.1

0.45

Unit:mm

FOR GENERAL PURPOSE HIGH CURRENT DRIVE APPLICATION SILICON PNP EPITAXIAL TYPE

4.0

OUTLINE DRAWING

3.0

13.0MIN

2.5

14.0

0.

## DESCRIPTION

ISA1399AS1 is a silicon PNP epitaxial type transistor designed with High collector current, high voltage. Complementary with ISA3581AS1.

# FEATURE

- High collector current.  $I_{CM}$ =600mA
- ●High gain band width product. fT=150MHz typ
- ●High V<sub>CEO</sub>. V<sub>CEO</sub>=-50V
- •Excellent linearity of DC forward current gain.

### **APPLICATION**

For switching, small type motor drive application.



Symbol	Parameter	Ratings	Unit
Vсво	Collector to Base voltage	-55	V
VEBO	Emitter to Base voltage	-4	V
VCEO	Collector to Emitter voltage	-50	V
I <sub>C</sub>	Collector current	-400	mA
I <sub>CM</sub>	Peak collector current	-600	mA
P。	Collector dissipation	600	mW
Tj	Junction temperature	+150	°C
T <sub>stg</sub>	Storage temperature	-55 <b>~</b> +150	°C

### ELECTRICAL CHARACTERISTICS(Ta=25°C)

Parameter	Parameter	Test conditions	Limits			Unit
		Test conditions		Тур	Max	Unit
V(BR)cbo	C to B break down voltage	$I_{\rm C}$ = -10 $\mu$ A , $I_{\rm E}$ = 0	-55	-	1	V
V(br)ebo	E to B break down voltage	$I_{E}$ = -10 $\mu$ A , $I_{C}$ = 0	-4	-	-	V
V(BR)CEO	C to E break down voltage	$\rm I_{c}$ = –100 $\mu$ A , RBE= $\infty$	-50	-	-	V
Ісво	Collector cut off current	V $_{CB}$ = -25V , I $_{E}$ = 0mA	-	-	-1	μA
IEBO	Emitter cut off current	$V_{EB} = -2V$ , $I_C = 0mA$	-	-	-1	μA
hFE※	DC forward current gain	$V_{CE} = -4V$ , $I_C = -100mA$	90	-	500	-
VCE(sat)	C to E Saturation Voltage	I <sub>c</sub> = -200mA , I <sub>B</sub> = -10mA	-	-0.17	-0.5	V
fT	Gain band width product	$V_{CE}$ = -6V , I <sub>E</sub> = 10mA	-	150	-	MHz

%) It shows hFE classification in right table.

ltem	D	E	F
hFE item	90~180	150~300	250~500



2 T

> JEITA: JEDEC:

TERMINAL CONNECTER (1): EMITTER

3:BASE

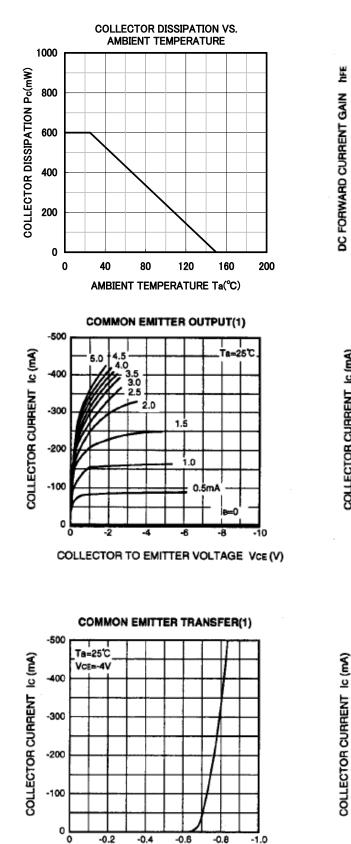
2:COLLECTOR

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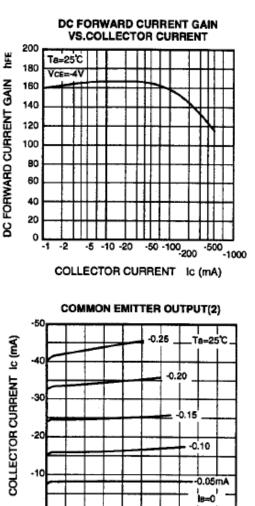
# **ISA1399AS1**

FOR GENERAL PURPOSE HIGH CURRENT DRIVE APPLICATION SILICON PNP EPITAXIAL TYPE

### **TYPICAL CHARACTERISTICS**



BASE TO EMITTER VOLTAGE VBE (V)



COLLECTOR TO EMITTER VOLTAGE VOE (V)

-30

20

10

COMMON EMITTER TRANSFER(2)

# ISAHAYA ELECTRONICS CORPORATION



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