

# PRELIMINARY

# ISC6053AM1

FOR GENERAL PURPOSE HIGH CURRENT DRIVE APPLICATION  
SILICON NPN EPITAXIAL TYPE

## DESCRIPTION

ISC6053AM1 is a silicon NPN epitaxial type transistor  
Designed with high collector current, low  $V_{CE(sat)}$ .

## FEATURE

- High collector current

$$I_{C(MAX)}=650\text{mA}$$

- Low collector to emitter saturation voltage

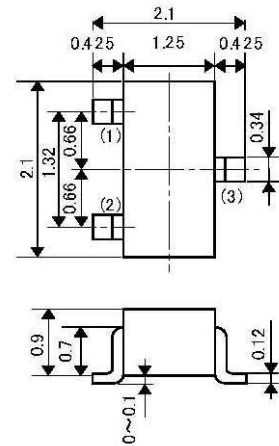
$$V_{CE(sat)} < 0.5V_{max}$$

## APPLICATION

For switching application, small type motor drive application.

## OUTLINE DRAWING

Unit: mm



## TERMINAL CONNECTOR

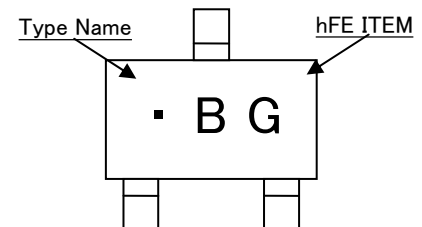
- ①: BASE
- ②: EMITTER
- ③: COLLECTOR

JEITA: SC-70  
JEDEC: —

## MAXIMUM RATINGS (Ta=25°C)

Symbol	Parameter	Ratings	Unit
$V_{CEO}$	Collector to Emitter voltage	20	V
$V_{CBO}$	Collector to Base voltage	25	V
$V_{EBO}$	Emitter to Base voltage	4	V
$I_C$	Collector current	650	mA
$P_C$	Collector dissipation	200	mW
$T_j$	Junction temperature	150	°C
$T_{stg}$	Storage temperature	-55~150	°C

## MARKING



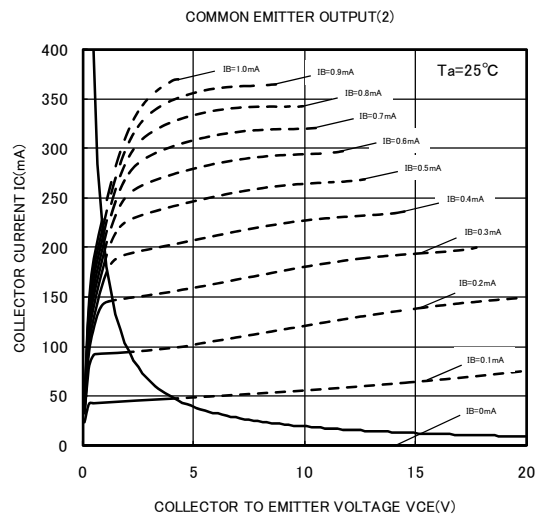
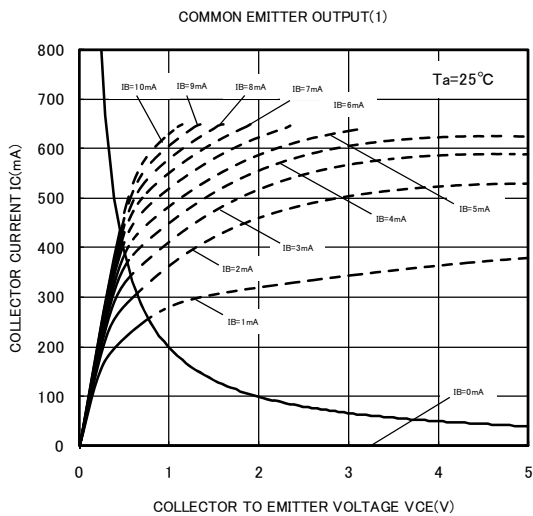
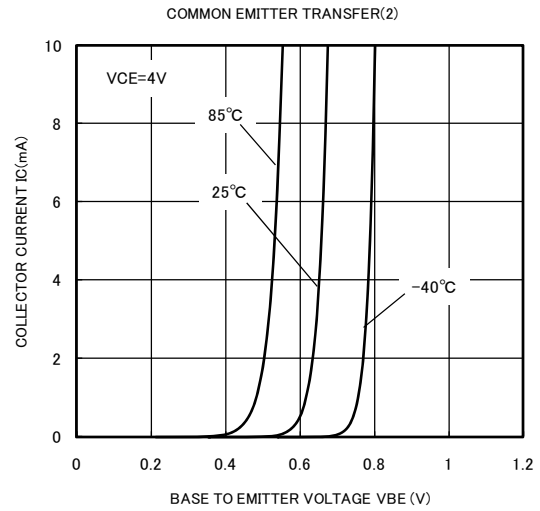
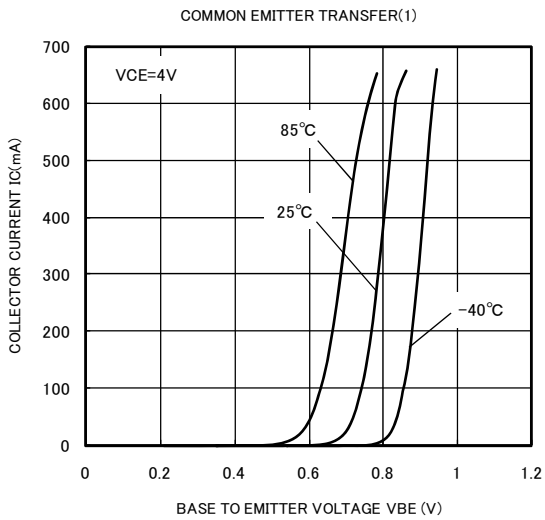
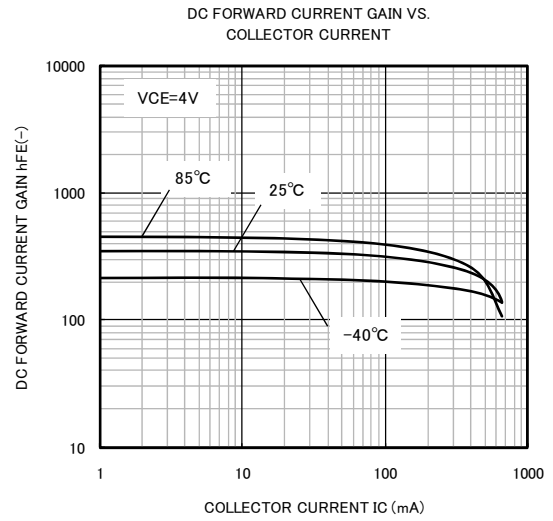
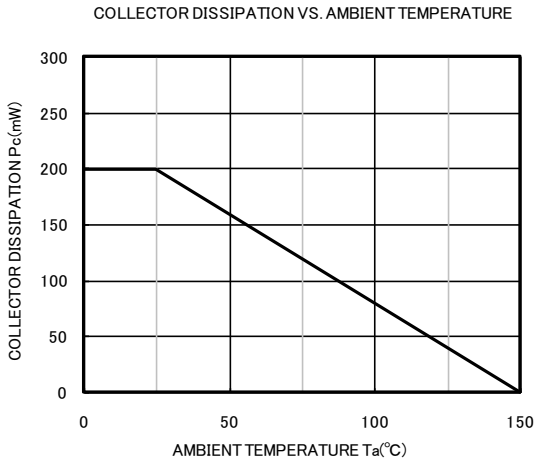
## ELECTRICAL CHARACTERISTICS (Ta=25°C)

Symbol	Parameter	Test condition	Limits			Unit
			Min	Typ	Max	
$V_{(BR)CEO}$	C to E break down voltage	$I_C=100\mu A, I_B=0$	20			V
$V_{(BR)CBO}$	C to B break down voltage	$I_C=10\mu A, I_E=0$	25			V
$V_{(BR)EBO}$	E to B break down voltage	$I_E=10\mu A, I_C=0$	4			V
$I_{CBO}$	Collector cut off current	$V_{CB}=25V, I_E=0$			1	$\mu A$
$I_{EBO}$	Emitter cut off current	$V_{EB}=2V, I_C=0$			1	$\mu A$
$h_{FE} \times$	DC forward current gain	$V_{CE}=4V, I_C=100mA$	150		800	-
$V_{CE(sat)}$	C to E saturation voltage	$I_C=500mA, I_B=25mA$		0.3	0.5	V
$f_T$	Gain band width product	$V_{CE}=6V, I_E=-10mA,$		290		MHz

\*: It shows hFE classification in below table.

ITEM	E	F	G
hFE	150~300	250~500	400~800

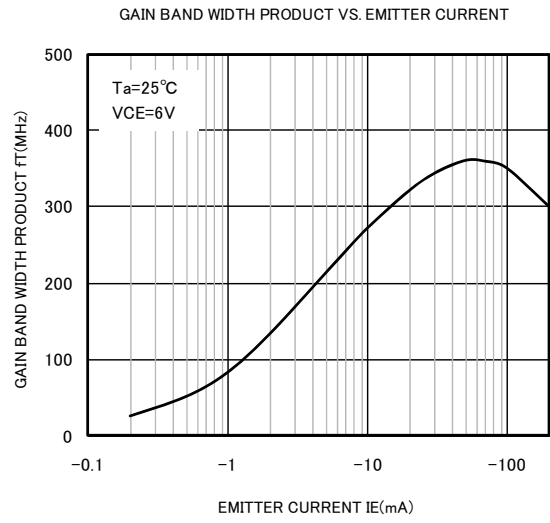
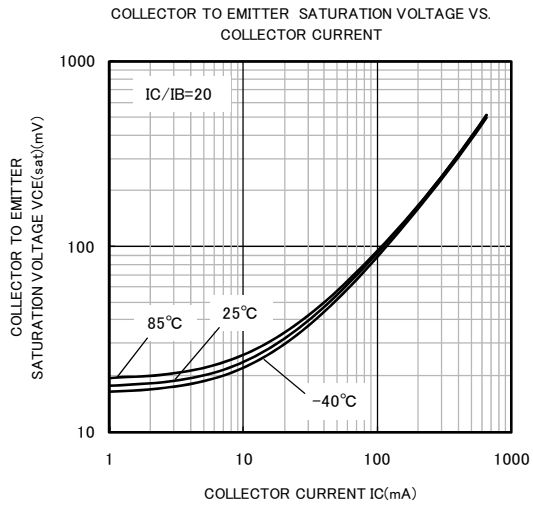
## TYPICAL CHARACTERISTICS



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