

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

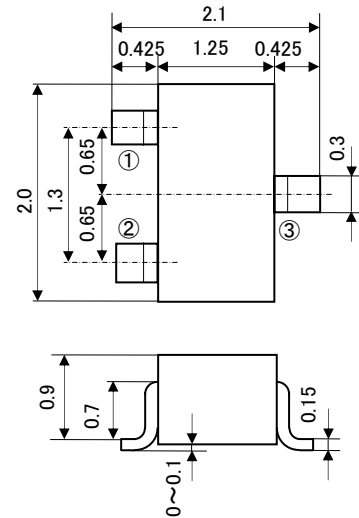
$$V_{CE(sat)} < 0.5V_{\text{max}}$$

APPLICATION

For switching application, small type motor drive application.

OUTLINE DRAWING

Unit: mm



TERMINAL CONNECTOR

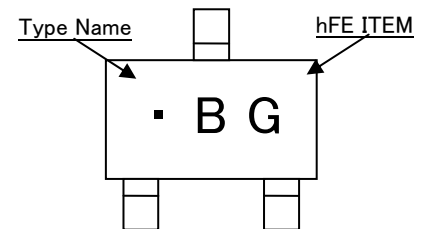
- ①: BASE
- ②: EMITTER
- ③: COLLECTOR

JEITA: SC-70
JEDEC: —

MAXIMUM RATINGS ($T_a=25^\circ\text{C}$)

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	$^\circ\text{C}$
T_{stg}	Storage temperature	-55~150	$^\circ\text{C}$

MARKING



ELECTRICAL CHARACTERISTICS ($T_a=25^\circ\text{C}$)

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

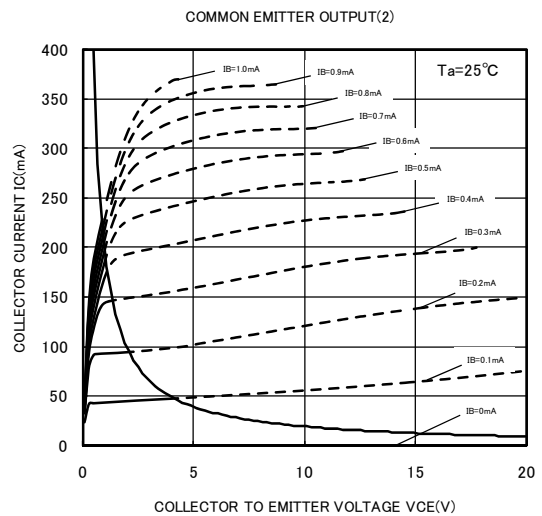
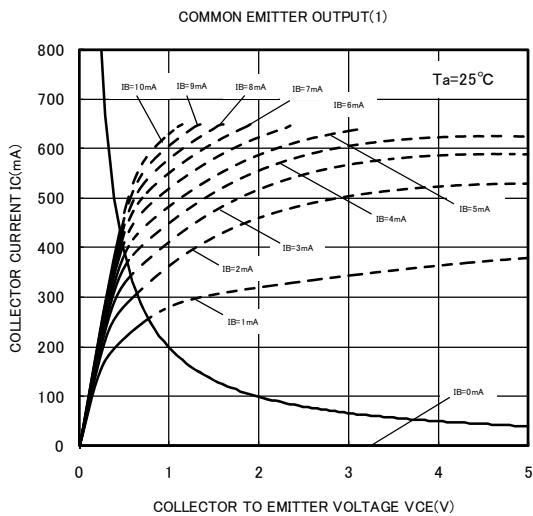
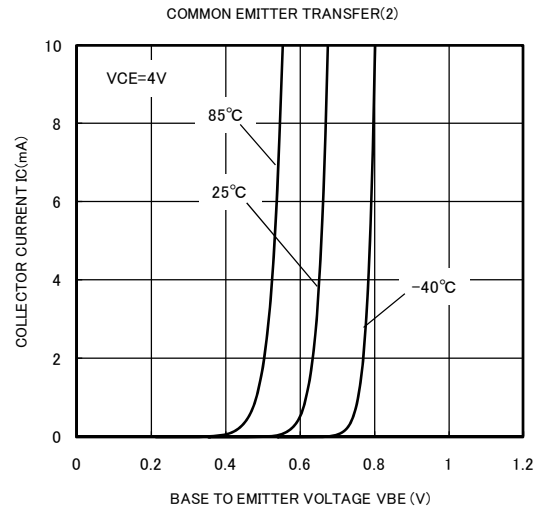
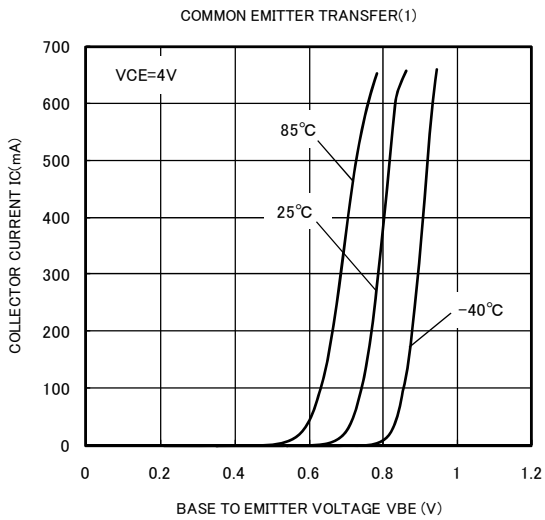
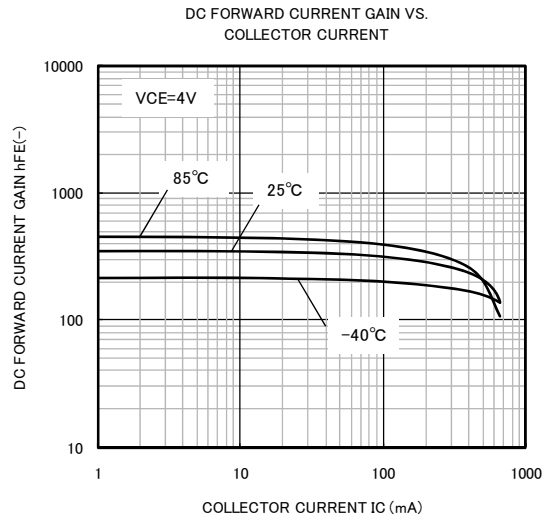
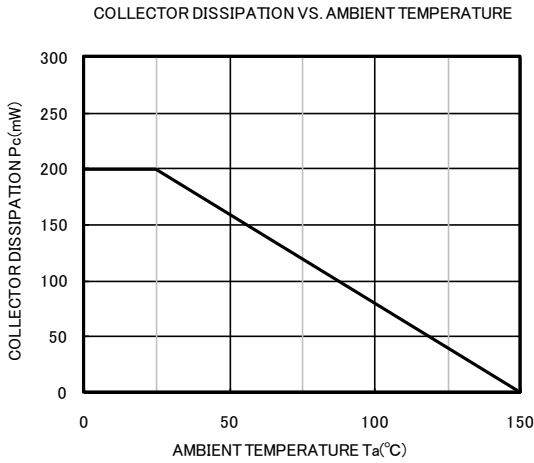
*: It shows hFE classification in below table.

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

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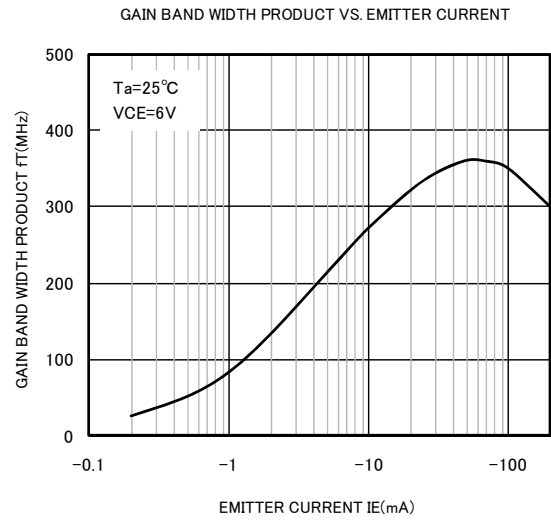
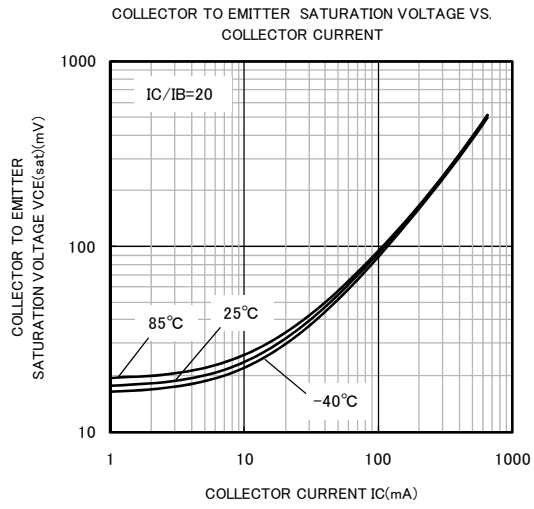
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TYPICAL CHARACTERISTICS



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