

〈Transistor〉

2SC5485

For High Current Application
Silicon NPN Epitaxial Type Micro(Frame type)

DESCRIPTION

Mitsubishi 2SC5485 is a silicon NPN epitaxial type transistor designed with high collector current, small $V_{CE(sat)}$.

FEATURE

- High collector current
 $I_{CM}=1000\text{mA}$
- Excellent linearity of DC forward current gain
- Low collector to emitter saturation voltage
 $V_{CE(sat)} = 0.2\text{V typ (@ } I_C=500\text{mA, } I_B=25\text{mA)}$
- High gain band width product
 $f_T = 180\text{MHz typ}$
- High collector dissipation
 $P_C = 600\text{mW}$

APPLICATION

Small type motor drive, relay drive, power supply application.

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

SYMBOL	PARAMETER	RATINGS	UNIT
V_{CBO}	Collector to Base voltage	25	V
V_{EBO}	Emitter to Base voltage	4	V
V_{CEO}	Collector to Emitter voltage	20	V
I_{CM}	Peak collector current	1000	mA
I_C	Collector current	700	mA
P_C	Collector to Base voltage	600	mW
T_J	Junction temperature	+150	$^\circ\text{C}$
T_{stg}	Storage temperature	-55to+150	$^\circ\text{C}$

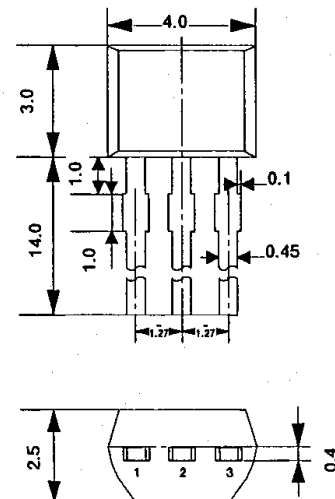
ELECTRICAL CHARACTERISTICS ($T_a=25^\circ\text{C}$)

SYMBOL	PARAMETER	TEST CONDITIONS	LIMITS			UNIT
			MIN	TYP	MAX	
$V_{(BR)CBO}$	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
$V_{(BR)CEO}$	C to E break down voltage	$I_C=100\mu\text{A}, R_{BE}=\infty$	20			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
$h_{FE} *$	DC forward current gain	$V_{CE}=4\text{V}, I_C=100\text{mA}$	150		800	—
$V_{CE(sat)}$	C to E saturation voltage	$I_C=500\text{mA}, I_B=25\text{mA}$		0.2	0.5	V
f_T	Gain band width product	$V_{CE}=6\text{V}, I_E=-10\text{mA}$		180		MHz

ITEM	E	F	G
h_{FE}	150~300	250~500	400~800

OUTLINE DRAWING

UNIT:mm



TERMINAL CONNECTOR

① : EMITTER
② : COLLECTOR
③ : BASE

EIAJ : —
JEDEC : —

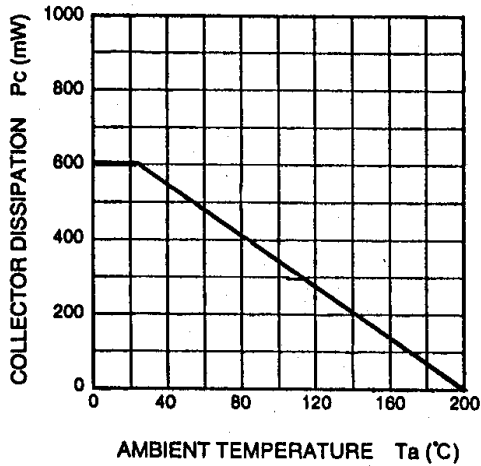
<Transistor>

2SC5485

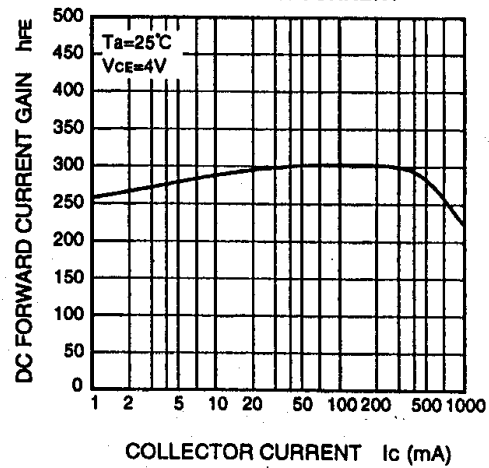
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TYPICAL CHARACTERISTICS

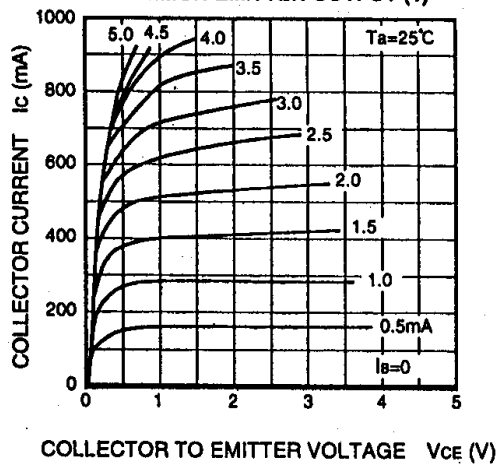
**COLLECTOR DISSIPATION VS.
AMBIENT TEMPERATURE**



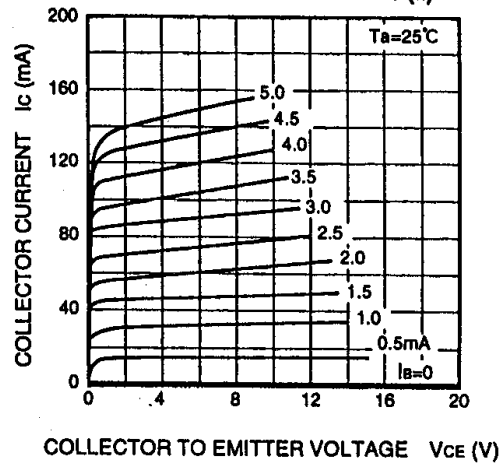
**DC FORWARD CURRENT GAIN VS.
COLLECTOR CURRENT**



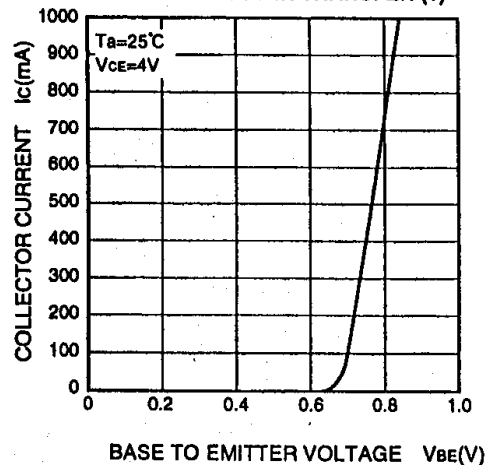
COMMON EMITTER OUTPUT (1)



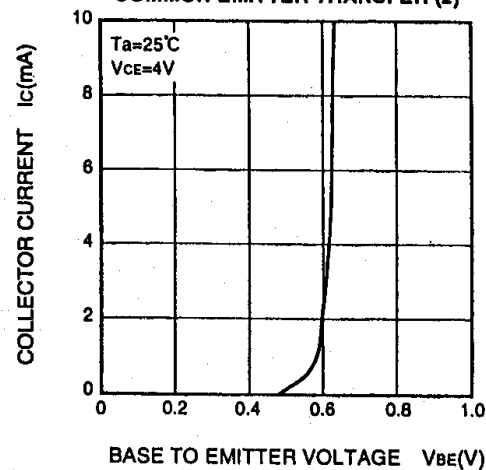
COMMON EMITTER OUTPUT (2)



COMMON EMITTER TRANSFER (1)



COMMON EMITTER TRANSFER (2)





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