

<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 (Ta=25°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	°C
$T_{stg}$	Storage temperature	-55to+150	°C

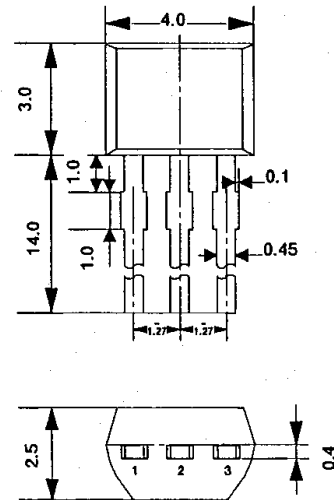
## ELECTRICAL CHARACTERISTICS (Ta=25°C)

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	$\mu\text{A}$
$I_{EBO}$	Emitter cut off current	$V_{EB}=2\text{V}, I_C=0$			1	$\mu\text{A}$
$h_{FE} *$	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 : —

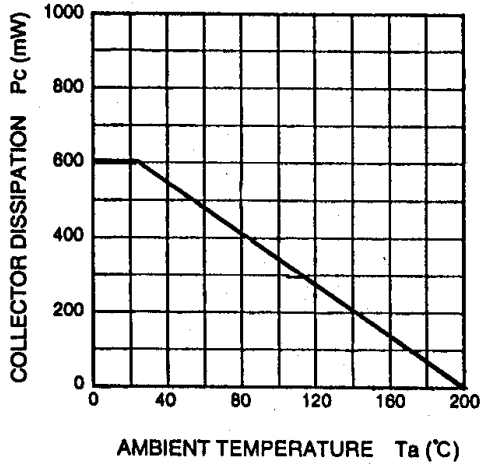
<Transistor>

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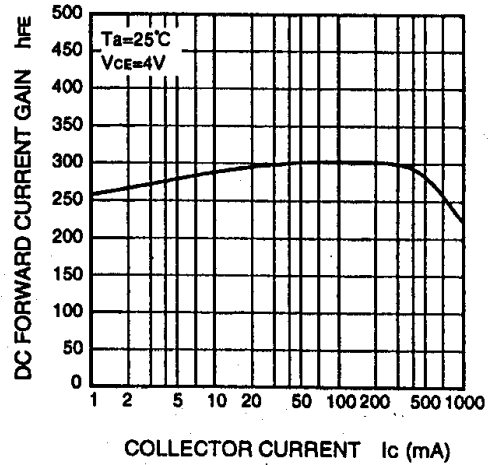
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Silicon NPN Epitaxial Type Micro(Frame type)

## TYPICAL CHARACTERISTICS

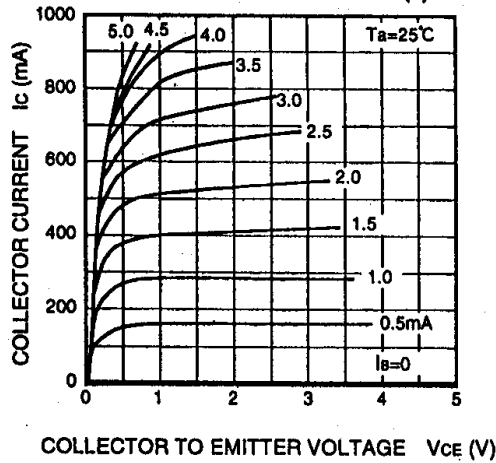
COLLECTOR DISSIPATION VS.  
AMBIENT TEMPERATURE



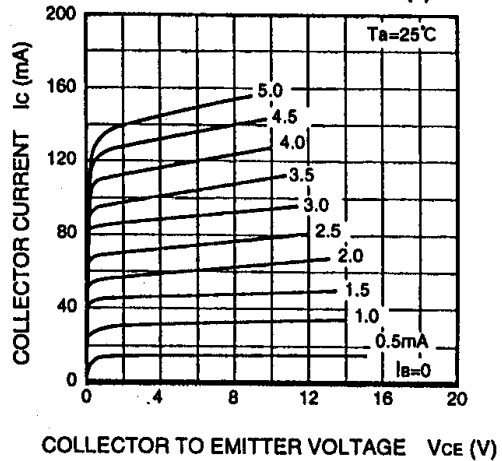
DC FORWARD CURRENT GAIN VS.  
COLLECTOR CURRENT



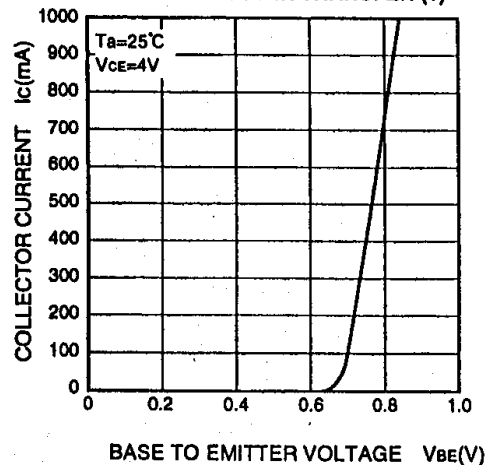
COMMON EMITTER OUTPUT (1)



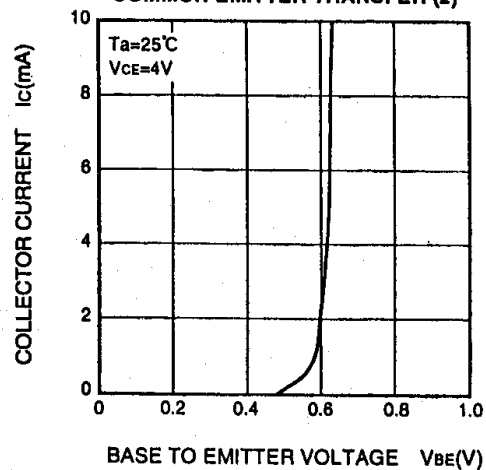
COMMON EMITTER OUTPUT (2)



COMMON EMITTER TRANSFER (1)



COMMON EMITTER TRANSFER (2)



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