〈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

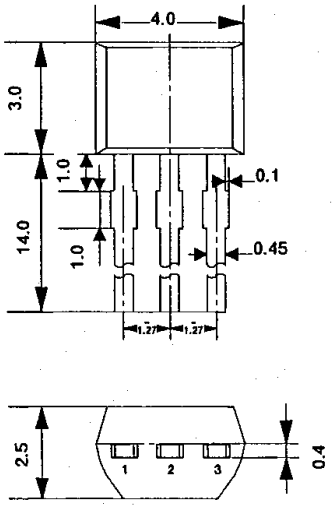
- High collector current
  I_{CM}=1000mA
- Excellent linearity of DC forward current gain
- Low collector to emitter saturation voltage
  $V_{CE(sat)}$ = 0.2V typ (@ I_C=500mA,I_B=25mA)
- High gain band width product
  f_T= 180MHz typ
- High collector dissipation
  P_C= 600mW

APPLICATION

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

OUTLINE DRAWING

UNIT:mm



TERMINAL CONNECTOR

① : EMITTER
② : COLLECTOR
③ : BASE

EIAJ : —
JEDEC :—

MAXIMUM RATINGS (Ta=25℃)

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	℃
T_{stg}	Storage temperature	-55to+150	℃

ELECTRICAL CHARACTERISTICS (Ta=25℃)

SYMBOL	PARAMETER	TESTCONDITIONS	LIMITS			UNIT
			MIN	TYP	MAX	
$V_{(BR)CBO}$	C to B break down voltage	I_C=10μA, I_E=0	25			V
$V_{(BR)EBO}$	E to B break down voltage	I_E=10μA, I_C=0	4			V
$V_{(BR)CEO}$	C to E break down voltage	I_C=100μA, R_{BE}=∞	20			V
I_{CBO}	Collector cut off current	V_{CB}=25V, I_E=0			1	μA
I_{EBO}	Emitter cut off current	V_{EB}=2V, I_C=0			1	μA
h_{FE} *	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		0.2	0.5	V
f_T	Gain band width product	V_{CE}=6V, I_E=-10mA		180		MHz

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

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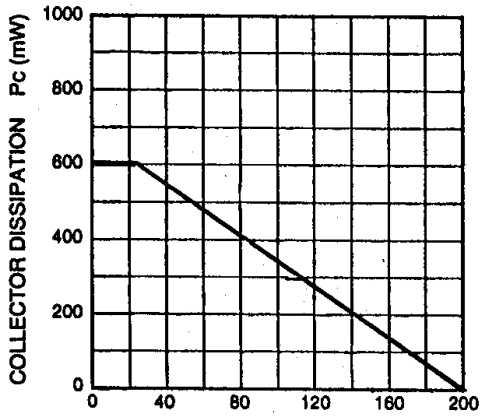
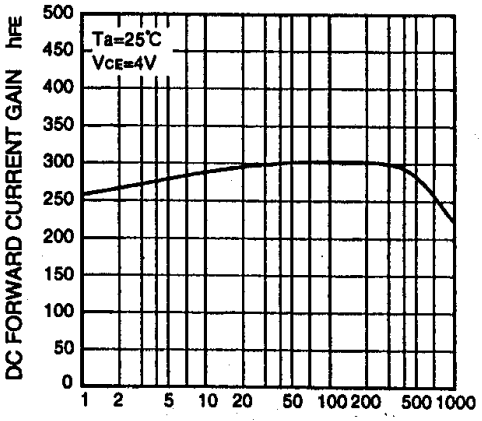
TYPICAL CHARACTERISTICS

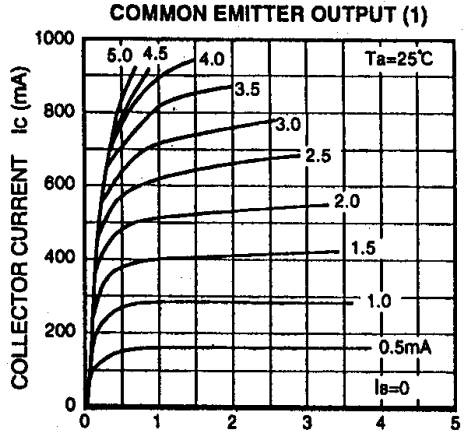
COLLECTOR DISSIPATION VS. AMBIENT TEMPERATURE



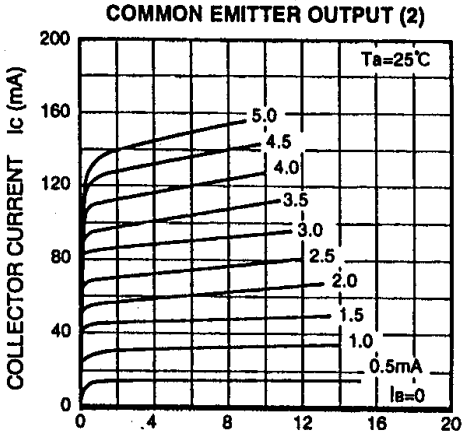
DC FORWARD CURRENT GAIN VS. COLLECTOR CURRENT



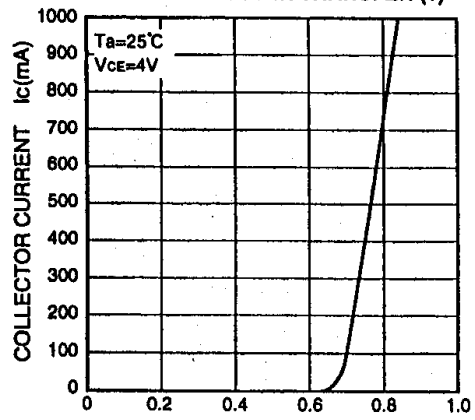
COMMON EMITTER OUTPUT (1)



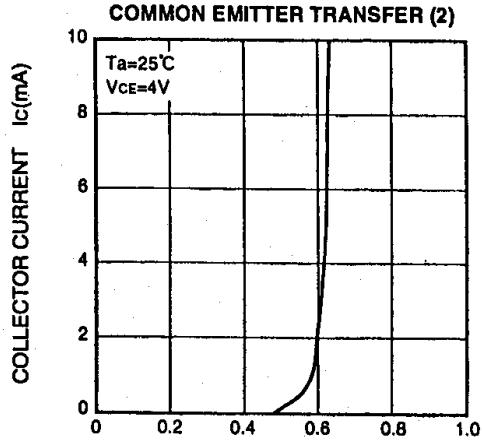
COMMON EMITTER OUTPUT (2)



COMMON EMITTER TRANSFER (1)



COMMON EMITTER TRANSFER (2)



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