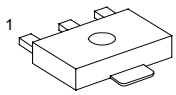
UTC 2SC2881 NPN EPITAXIAL SILICON TRANSISTOR

VOLTAGE AMPLIFIER APPLICATIONS POWER AMPLIFIER APPLICATIONS



SOT-89

1:EMITTER 2:COLLECTOR 3:BASE

FEATURES

* High voltage: V_{CEO}= 120V
* High transition frequency: f_T=120MHz(typ.)
* Pc=1.0 ~ 2.0 W(mounted on ceramic substrate)
* Complementary to 2SA1201

ABSOLUTE MAXIMUM RATINGS (Ta=25℃)

PARAMETER	SYMBOL	RATINGS	UNIT
Collector-base voltage	V_{CBO}	120	V
Collector-emitter voltage	V_{CEO}	120	V
Emitter-base voltage	V_{EBO}	5	V
Collector current	I_C	800	mA
Base current	I_B	160	mA
Collector power dissipation	P_C	500	mW
	P_C(Note 1)	1000	
Junction temperature	T_j	150	℃
Storage temperature range	T_{stg}	-55 ~ 150	℃

Note 1: Mounted on ceramic substrate($250mm^2 \times 0.8t$)

ELECTRICAL CHARACTERISTICS (Ta=25℃)

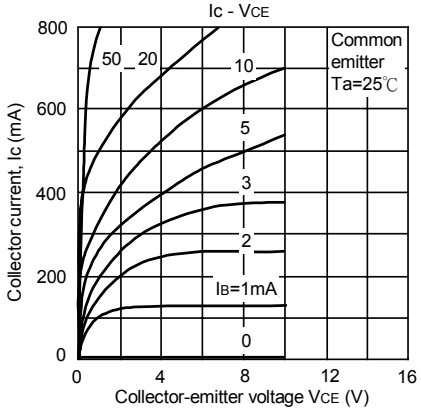
PARAMETER	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C=10mA, I_B=0	120			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=1mA, I_C=0	5			V
Collector cut-off current	I_{CBO}	V_{CB}=120V, I_E=0			0.1	μA
Emitter cut-off current	I_{EBO}	V_{EB}=5V, I_C=0			0.1	μA
DC current gain	h_{FE}	V_{CE}=5V, I_C=100mA	80		240	
Collector-emitter saturation voltage	V_{CE}(sat)	I_C=500mA, I_B=50mA			1.0	V
Base-emitter voltage	V_{BE}	V_{CE}=5V, I_C=500mA			1.0	V
Transition frequency	f_T	V_{CE}=5V, I_C=100mA		120		MHz
Collector output capacitance	C_{ob}	V_{CB}=10V, f=1MHz, I_E=0			30	pF

CLASSIFICATION OF h_{FE}

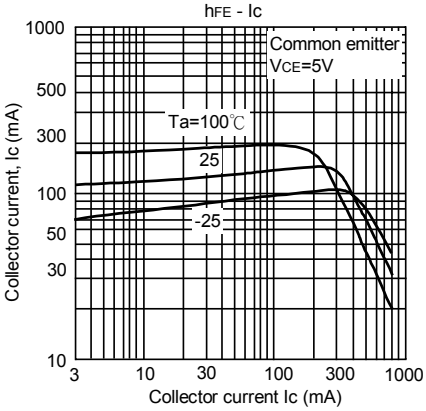
RANK	O	Y
RANGE	80 - 160	120 - 240

TYPICAL PERFORMANCE CHARACTERISTICS

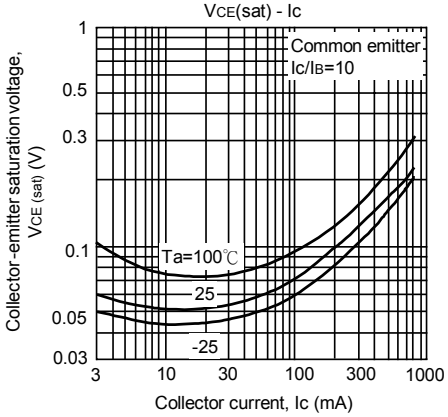
Ic - VCE



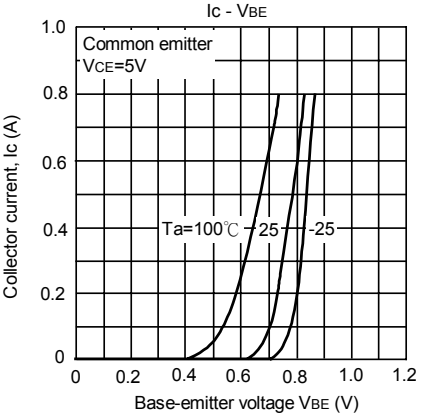
hFE - Ic



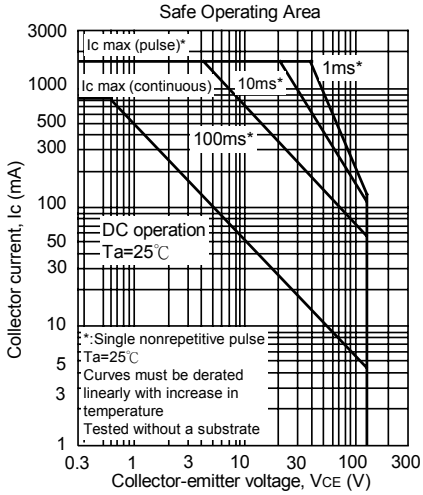
VCE(sat) - Ic



Ic - VBE



Safe Operating Area



Pc - Ta