Elektronische Bauelemente

2SC1383/2SC1384

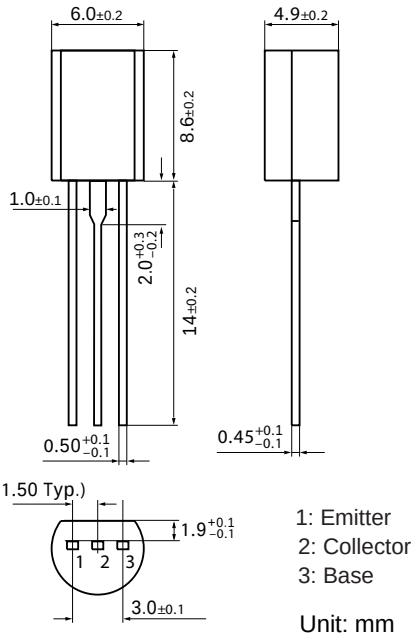
NPN Silicon

General Purpose Transistor

RoHS Compliant Product

A suffix of "-C" specifies halogen & lead-free

TO-92 MOD



1: Emitter
2: Collector
3: Base

Unit: mm

FEATURE

Power dissipation

P_{CM}: 1 W (Tamb=25℃)

Collector current

I_{CM}: 1 A

Collector-base voltage

$V_{(BR)CBO}$: 2SC1383: 30 V

2SC1384: 50 V

Operating and storage junction temperature range

T_J, T_{stg}: -55℃ to +150℃

ELECTRICAL CHARACTERISTICS (Tamb=25℃ unless otherwise specified)

Parameter		Symbol	Test conditions	MIN	MAX	UNIT
Collector-base breakdown voltage	**2SC1383**	$V(BR)_{CBO}$	Ic= 10μA , I_E=0	30		V
	2SC1384			60		
Collector-emitter breakdown voltage	**2SC1383**	$V(BR)_{CEO}$	I_C=2mA , I_B=0	25		V
	2SC1384			50		
Emitter-base breakdown voltage		$V(BR)_{EBO}$	I_E= 10μA, I_C=0	5		V
Collector cut-off current		I_{CBO}	V_{CB}=20V , I_E=0		0.1	μA
DC current gain		$h_{FE(1)}$	V_{CE}=10 V, I_C= 500mA	85	340	
		$h_{FE(2)}$	V_{CE}=5 V, I_C= 1A	50		
Collector-emitter saturation voltage		$V_{CE(sat)}$	I_C= 500m A, I_B=50mA		0.4	V
Base-emitter saturation voltage		$V_{BE(sat)}$	I_C= 500mA , I_B= 50mA		1.2	V
Transition frequency		f_T	V_{CE}= 10 V, I_C= 50mA	100		MHz

CLASSIFICATION OF $h_{FE(1)}$

Rank	Q	R	S
Range	85-170	120-240	170-340

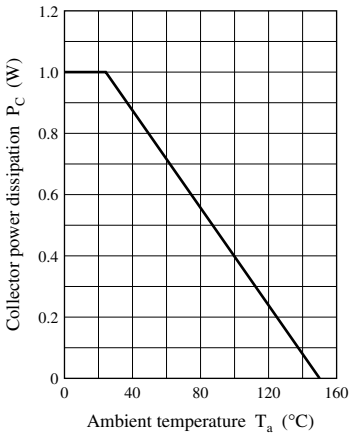
Elektronische Bauelemente

2SC1383/2SC1384

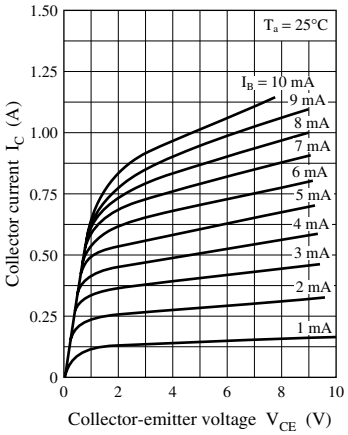
NPN Silicon

General Purpose Transistor

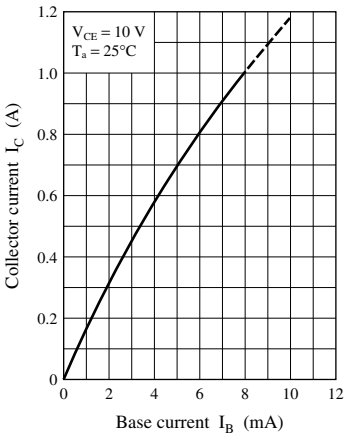
P_C — T_a



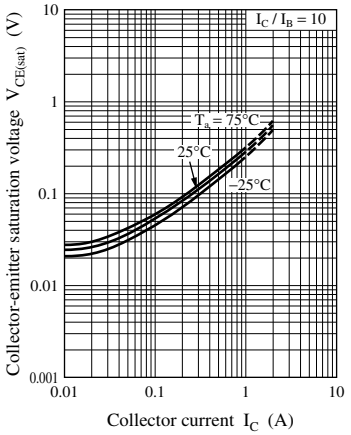
I_C — V_{CE}



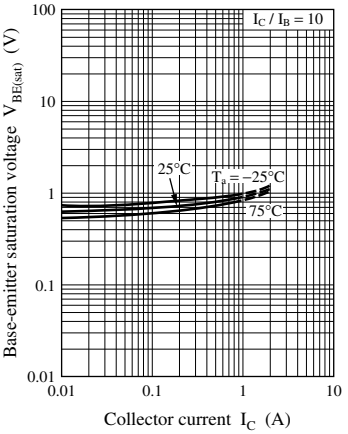
I_C — I_B



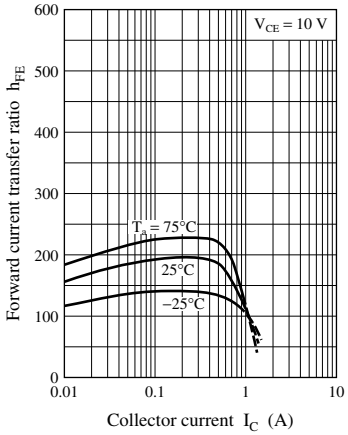
$V_{CE(sat)}$ — I_C



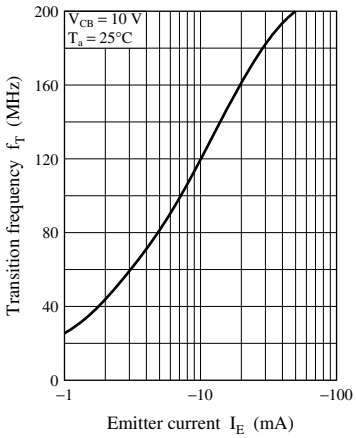
$V_{BE(sat)}$ — I_C



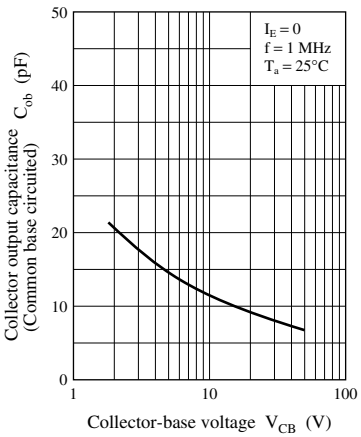
h_{FE} — I_C



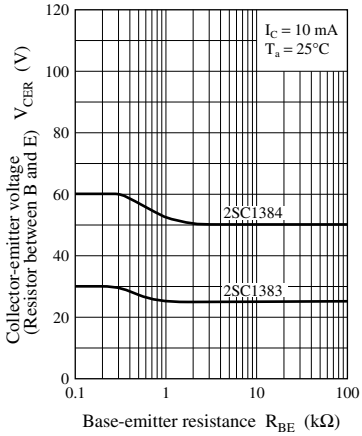
f_T — I_E



C_{ob} — V_{CB}



V_{CER} — R_{BE}



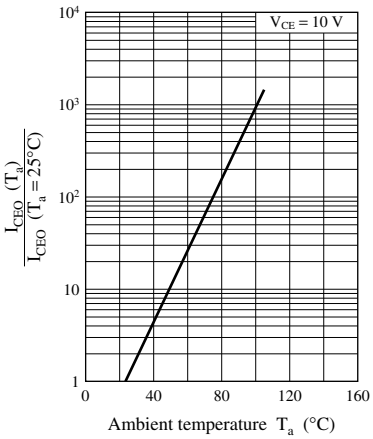
Elektronische Bauelemente

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General Purpose Transistor

I_{CEO} — T_a



Safe operation area

