Elektronische Bauelemente

2SC1213 & 2SC1213A

NPN Silicon

General Purpose Transistor

RoHS Compliant Product

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

FEATURE

TO-92

Low frequency amplifier

Power dissipation

P_{CM}: 0.4 W (Tamb=25℃)

Collector current

I_{CM}: 0.5 A

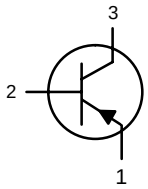
Collector-base voltage

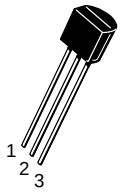
$V_{(BR)CBO}$: 2SC1213 : 35 V

2SC1213A : 50 V

Operating and storage junction temperature range

T_J, T_{stg}: -55℃ to +150℃





1. Emitter
2. Collector
3. Base

ELECTRICAL CHARACTERISTICS(Tamb=25℃ unless otherwise specified)

Parameter		Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	**2SC1213**	$V(BR)_{CBO}$	Ic= 10μA , I_E=0	35			V
	2SC1213A			50			
Collector-emitter breakdown voltage	**2SC1213**	$V(BR)_{CEO}$	I_C= 1 mA , I_B=0	35			V
	2SC1213A			50			
Emitter-base breakdown voltage		$V(BR)_{EBO}$	I_E=10μA, I_C=0	4			V
Collector cut-off current		I_{CBO}	V_{CB}= 20V , I_E=0			0.5	μA
DC current gain		$h_{FE(1)}$	V_{CE}=3V, I_C= 10mA	60		320	
		$h_{FE(2)}$	V_{CE}=3V, I_C= 500mA	10			
Collector-emitter saturation voltage		$V_{CE(sat)}$	I_C= 150mA, I_B= 15 mA		0.2	0.6	V
Base-emitter voltage		V_{BE}	V_{CE}= 3V, I_C= 10 mA			0.75	V

CLASSIFICATION OF $h_{FE(1)}$

Rank	B	C	D
Range	60-120	100-200	160-320

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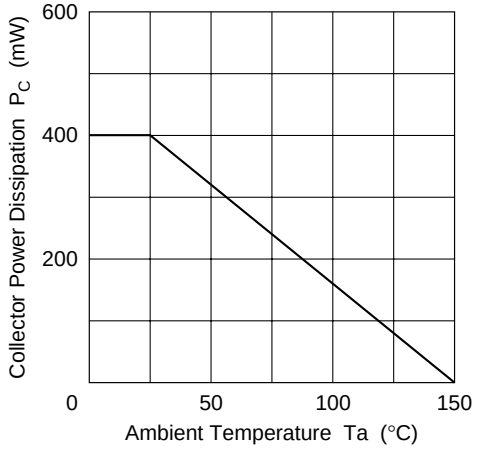
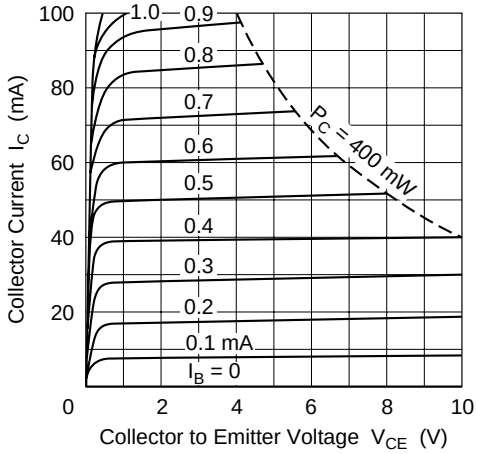
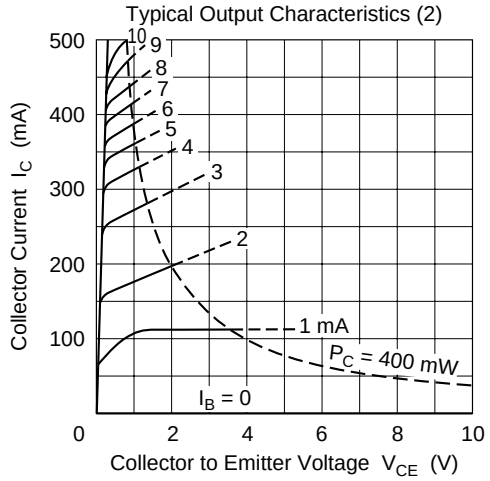
Maximum Collector Dissipation Curve



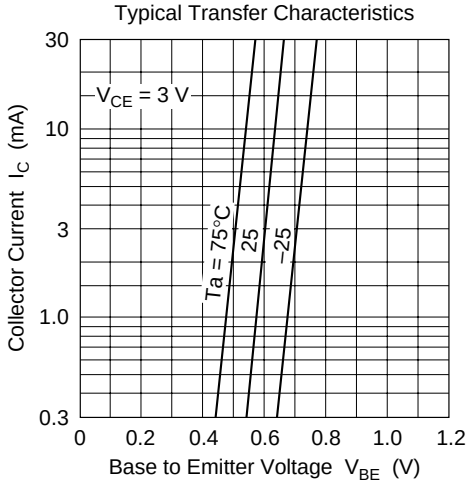
Typical Output Characteristics (1)



Typical Output Characteristics (2)



Typical Transfer Characteristics



DC Current Transfer Ratio vs. Collector Current