

NPN SILICON EPITAXIAL TRANSISTOR 2SC4783

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DESCRIPTION

The 2SC4783 is NPN silicon epitaxial transistor.

FEATURES

- High DC current gain: hFE2 = 200 TYP.
- High voltage: VcEo = 50 V

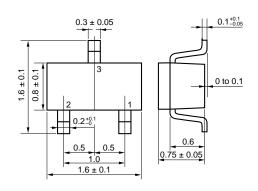
ABSOLUTE MAXIMUM RATINGS (TA = 25°C)

Collector to Base Voltage	Vсво	60	V
Collector to Emitter Voltage	VCEO	50	V
Emitter to Base Voltage	VEBO	5.0	V
Collector Current (DC)	Ic(DC)	100	mΑ
Collector Current (pulse) Note1	IC(pulse)	200	mΑ
Total Power Dissipation $(T_A = 25^{\circ}C)^{\text{Note2}}$	Рт	200	mW
Junction Temperature	Tj	150	°C
Storage Temperature Range	Tstg	-55 to + 150	°C

Notes 1. PW \leq 10 ms, Duty Cycle \leq 50%

2. When mounted on ceramic substrate of 3.0 cm² x 0.64 mm

PACKAGE DRAWING (Unit: mm)



- 1: Emitter
- 2: Base
- 3: Collector

ELECTRICAL CHARACTERISTICS (TA = 25°C)

CHARACTERISTICS	SYMBOL	TEST CONDITIONS		TYP.	MAX.	UNIT
Collector Cut-off Current	Ісво	Vcb = 60 V, IE = 0			100	nA
Emitter Cut-off Current	ІЕВО	V _{EB} = 5.0 V, I _C = 0			100	nA
DC Current Gain Note	h _{FE1}	Vce = 6.0 V, Ic = 0.1 mA	50			-
	h _{FE2}	Vce = 6.0 V, Ic = 1.0 mA	90	200	600	-
Base to Emitter Voltage Note	V _{BE}	Vce = 6.0 V, Ic = 1.0 mA		0.62		V
Collector Saturation Voltage Note	VCE(sat)	Ic = 100 mA, I _B = 10 mA		0.15	0.3	V
Base Saturation Voltage Note	V _{BE(sat)}	Ic = 100 mA, I _B = 10 mA		0.86	1.0	V
Gain Bandwidth Product	f⊤	Vce = 6.0 V, Ie = -10 mA		250		MHz
Output Capacitance	Соь	Vce = 6.0 V, Ie = 0, f = 1.0 MHz		3.0	4.0	pF

Note Pulsed: PW \leq 350 μ s, Duty Cycle \leq 2%

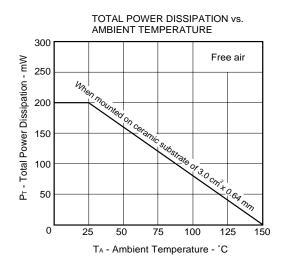
hfe CLASSFICATION

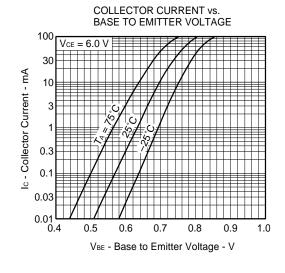
Marking	L4	L5	L6	L7
h _{FE2}	90 to 180	135 to 270	200 to 400	300 to 600

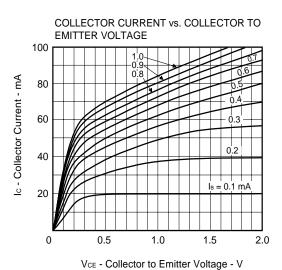
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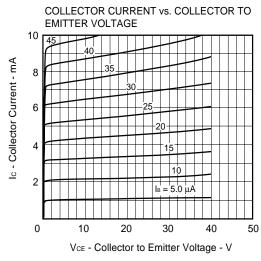
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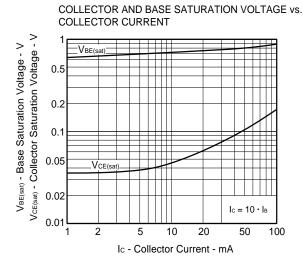
TYPICAL CHARACTERISTICS (TA = 25°C)

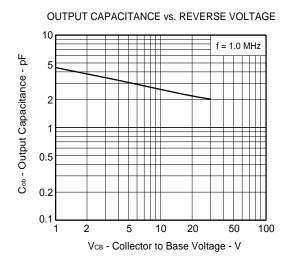




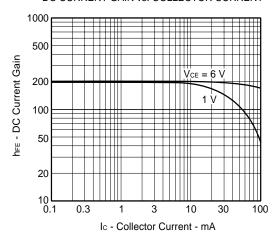




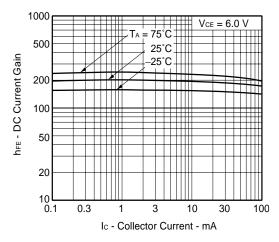




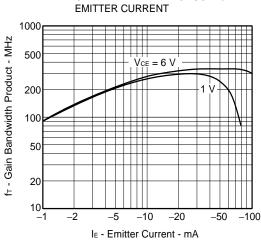
DC CURRENT GAIN vs. COLLECTOR CURRENT



DC CURRENT GAIN vs. COLLECTOR CURRENT



GAIN BANDWIDTH PRODUCT vs.



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