

To our customers,

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## Old Company Name in Catalogs and Other Documents

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Renesas Electronics website: <http://www.renesas.com>

April 1<sup>st</sup>, 2010  
Renesas Electronics Corporation

Issued by: Renesas Electronics Corporation (<http://www.renesas.com>)

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EOL announced Product

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NPN SILICON EPITAXIAL TRANSISTOR  
FOR HIGH-VOLTAGE SWITCHING

DESCRIPTION

The 2SD2383 is an element realizing high voltage in small dimension. This transistor is ideal for downsizing sets requiring high voltage.

FEATURES

- High voltage
- Small dimension

★ ORDERING INFORMATION

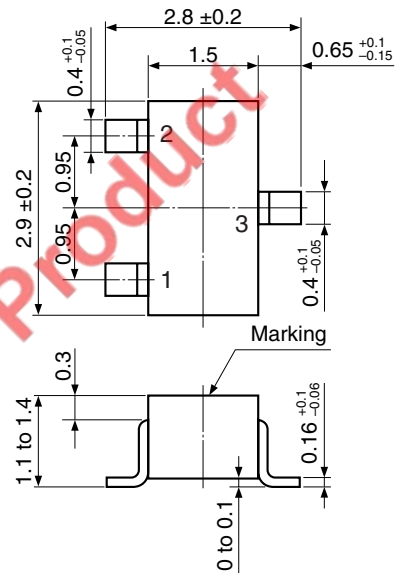
PART NUMBER	PACKAGE
2SD2383	SC-59

Marking: N1

ABSOLUTE MAXIMUM RATINGS (T<sub>A</sub> = 25°C)

Collector to Base Voltage	V <sub>CBO</sub>	400	V
Collector to Emitter Voltage	V <sub>CEO</sub>	300	V
Emitter to Base Voltage	V <sub>EBO</sub>	5.0	V
Collector Current (DC)	I <sub>C(DC)</sub>	20	mA
Total Power Dissipation	P <sub>T</sub>	200	mW
Junction Temperature	T <sub>j</sub>	150	°C
Storage Temperature	T <sub>stg</sub>	-55 to +150	°C

★ PACKAGE DRAWING (Unit: mm)



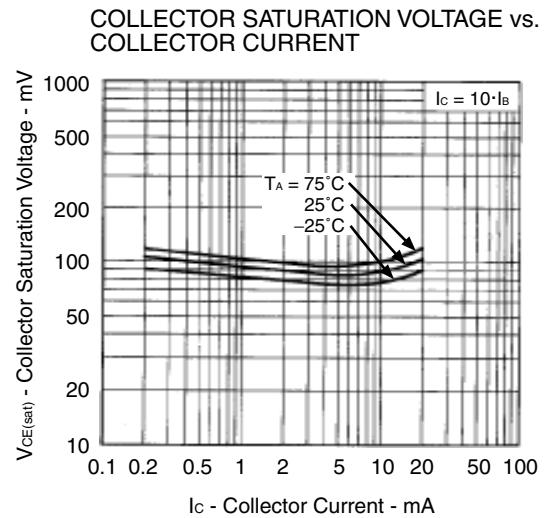
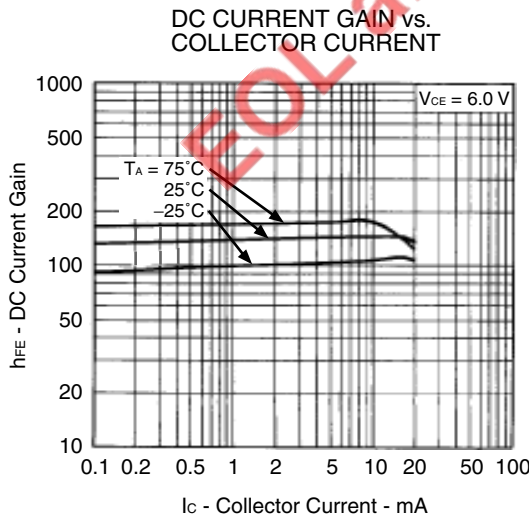
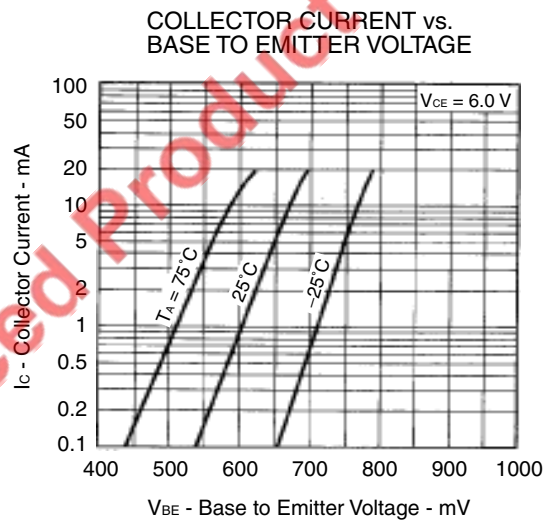
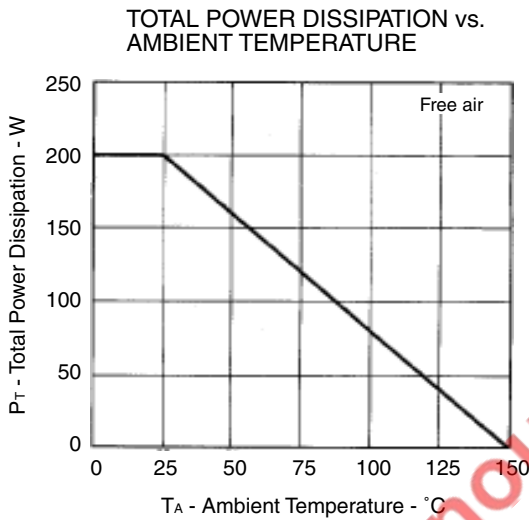
1. Emitter
2. Base
3. Collector

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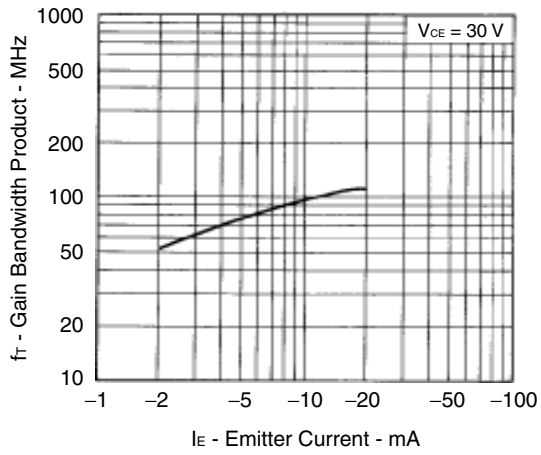
**ELECTRICAL CHARACTERISTICS (T<sub>A</sub> = 25°C)**

CHARACTERISTICS	SYMBOL	TEST CONDITIONS	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I <sub>CBO</sub>	V <sub>CB</sub> = 200 V, I <sub>E</sub> = 0 A			100	nA
Emitter Cut-off Current	I <sub>EBO</sub>	V <sub>EB</sub> = 5.0 V, I <sub>C</sub> = 0 A			100	nA
DC Current Gain	h <sub>FE</sub>	V <sub>CE</sub> = 6.0 V, I <sub>C</sub> = 5 mA	100		250	-
Collector Saturation Voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> = 5.0 mA, I <sub>B</sub> = 0.5 mA		85	500	mV
Base Saturation Voltage	V <sub>BE(sat)</sub>	I <sub>C</sub> = 5.0 mA, I <sub>B</sub> = 0.5 mA		0.68	1.0	V
Gain Bandwidth Product	f <sub>T</sub>	V <sub>CE</sub> = 30 V, I <sub>E</sub> = -10 mA		90		MHz
Output Capacitance	C <sub>ob</sub>	V <sub>CB</sub> = 30 V, I <sub>E</sub> = 0, f = 1 MHz		1.3		pF

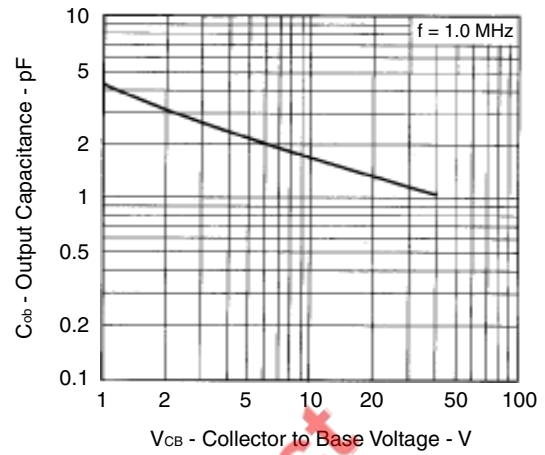
**TYPICAL CHARACTERISTICS (T<sub>A</sub> = 25°C)**



GAIN BANDWIDTH PRODUCT vs. EMITTER CURRENT



OUTPUT CAPACITANCE vs. REVERSE VOLTAGE



EOL announced Product

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