NEC

SILICON TRANSISTOR
2SD2383

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

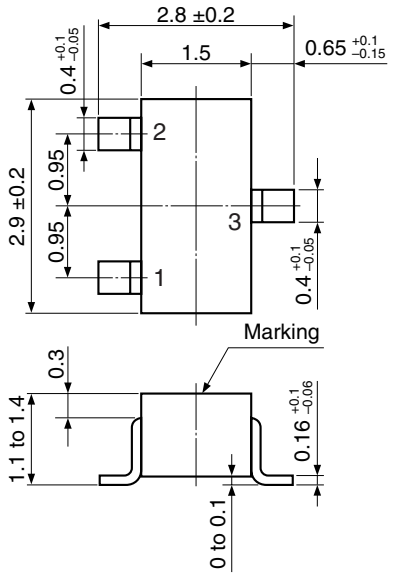
PART NUMBER	PACKAGE
2SD2383	SC-59

Marking: N1

ABSOLUTE MAXIMUM RATINGS (T_A = 25°C)

Collector to Base Voltage	V_{CBO}	400	V
Collector to Emitter Voltage	V_{CEO}	300	V
Emitter to Base Voltage	V_{EBO}	5.0	V
Collector Current (DC)	$I_{C(DC)}$	20	mA
Total Power Dissipation	P_T	200	mW
Junction Temperature	T_j	150	°C
Storage Temperature	T_{stg}	–55 to +150	°C

★ PACKAGE DRAWING (Unit: mm)



1. Emitter
2. Base
3. Collector

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Document No. D16154EJ2V0DS00 (2nd edition)
Date Published August 2004 NS CP(K)
Printed in Japan

The mark ★ shows major revised points.

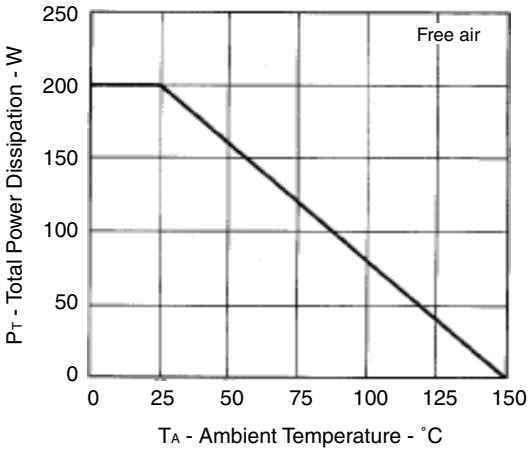
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ELECTRICAL CHARACTERISTICS (T_A = 25°C)

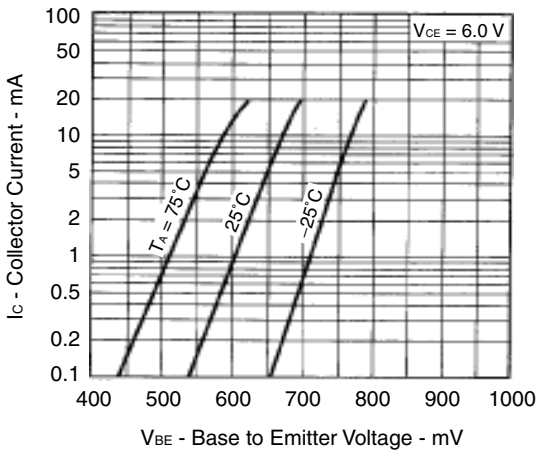
CHARACTERISTICS	SYMBOL	TEST CONDITIONS	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	V_{CB} = 200 V, I_E = 0 A			100	nA
Emitter Cut-off Current	I_{EBO}	V_{EB} = 5.0 V, I_C = 0 A			100	nA
DC Current Gain	h_{FE}	V_{CE} = 6.0 V, I_C = 5 mA	100		250	–
Collector Saturation Voltage	$V_{CE(sat)}$	I_C = 5.0 mA, I_B = 0.5 mA		85	500	mV
Base Saturation Voltage	$V_{BE(sat)}$	I_C = 5.0 mA, I_B = 0.5 mA		0.68	1.0	V
Gain Bandwidth Product	f_T	V_{CE} = 30 V, I_E = –10 mA		90		MHz
Output Capacitance	C_{ob}	V_{CB} = 30 V, I_E = 0, f = 1 MHz		1.3		pF

TYPICAL CHARACTERISTICS (T_A = 25°C)

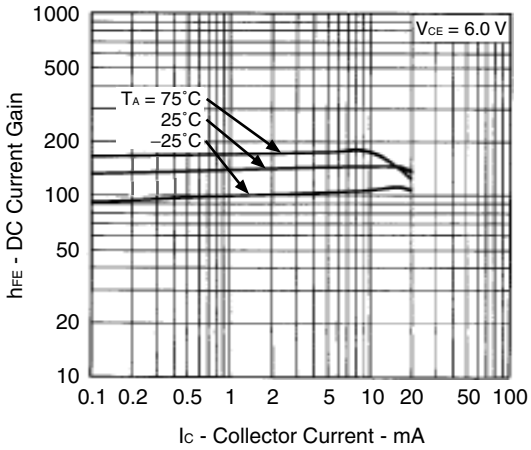
TOTAL POWER DISSIPATION vs. AMBIENT TEMPERATURE



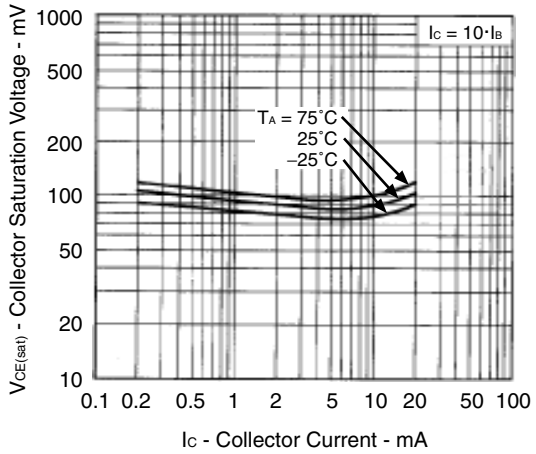
COLLECTOR CURRENT vs. BASE TO EMITTER VOLTAGE



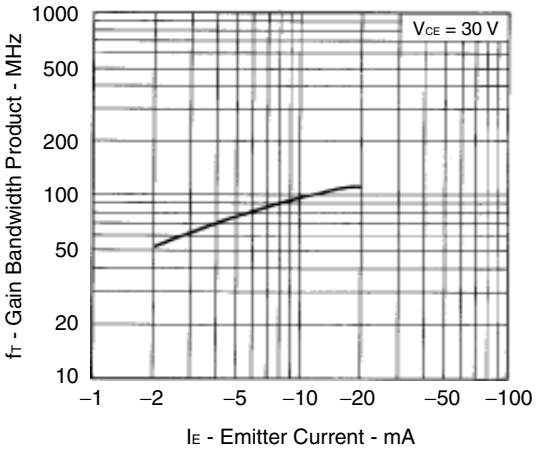
DC CURRENT GAIN vs. COLLECTOR CURRENT



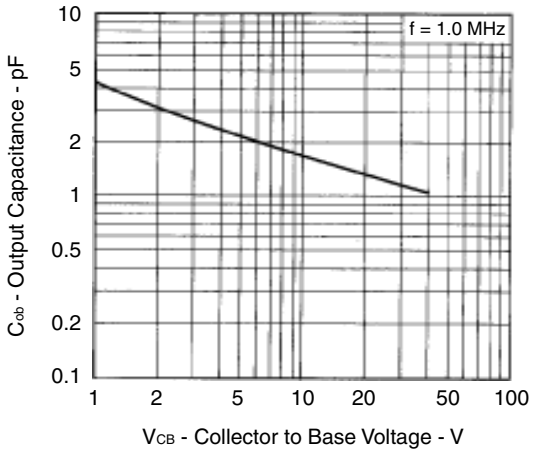
COLLECTOR SATURATION VOLTAGE vs. COLLECTOR CURRENT



GAIN BANDWIDTH PRODUCT vs.
EMITTER CURRENT



OUTPUT CAPACITANCE vs.
REVERSE VOLTAGE



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