

NPN SILICON EPITAXIAL TRANSISTOR  
FOR HIGH-VOLTAGE SWITCHING

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

FEATURES

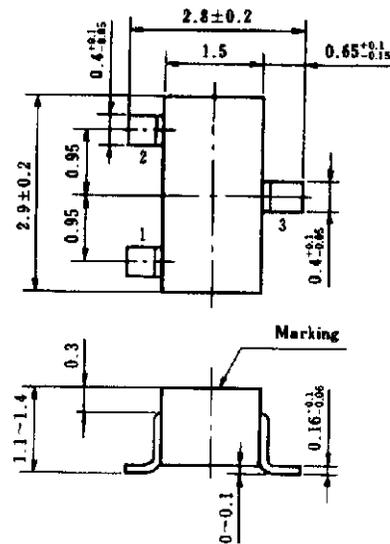
- High voltage
- Small dimension

QUALITY GRADES

- Standard

Please refer to "Quality Grades on NEC Semiconductor Devices" (Document No. C11531E) published by NEC Corporation to know the specification of quality grade on the devices and its recommended applications.

PACKAGE DRAWING (UNIT: mm)



Electrode connection

1. Emitter
2. Base
3. Collector

ABSOLUTE MAXIMUM RATINGS (Ta = 25°C)

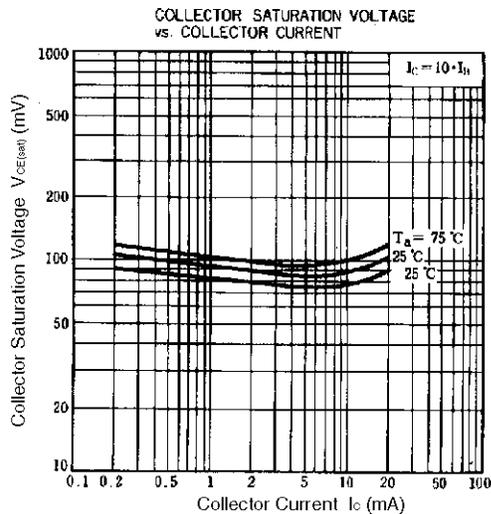
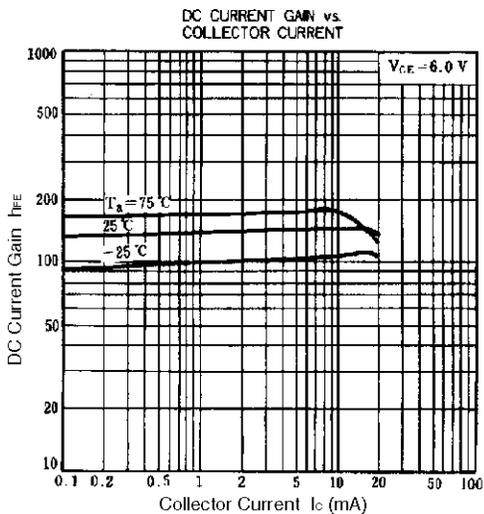
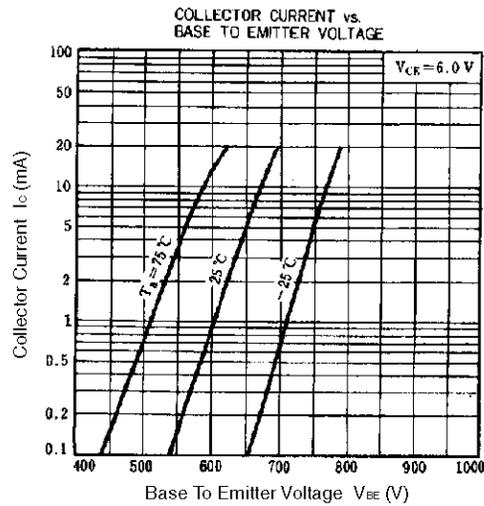
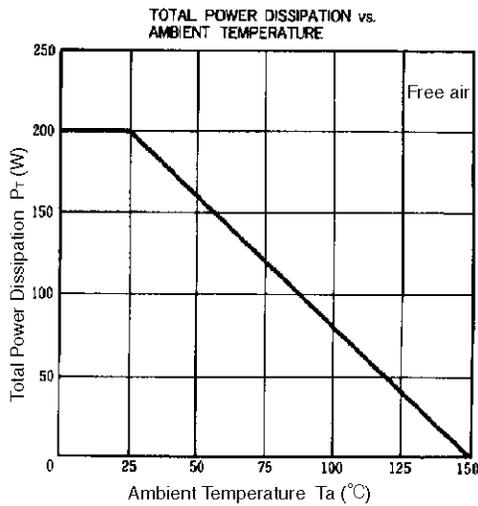
Parameter	Symbol	Ratings	Unit
Collector to base voltage	V <sub>CB0</sub>	400	V
Collector to emitter voltage	V <sub>CE0</sub>	300	V
Emitter to base voltage	V <sub>EB0</sub>	5.0	V
Collector current (DC)	I <sub>D(DC)</sub>	20	mA
Total power dissipation	P <sub>T</sub>	200	mW
Junction temperature	T <sub>J</sub>	150	°C
Storage temperature	T <sub>stg</sub>	-55 to +150	°C

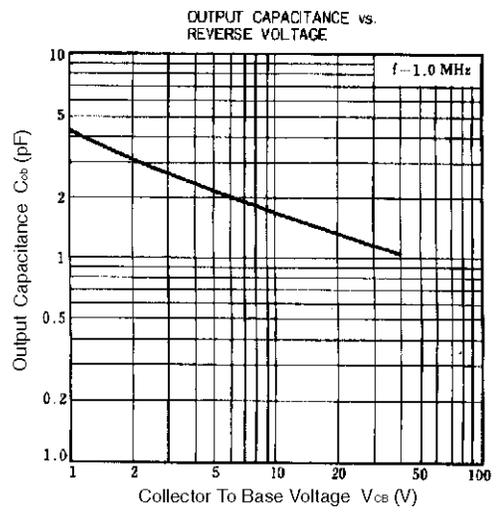
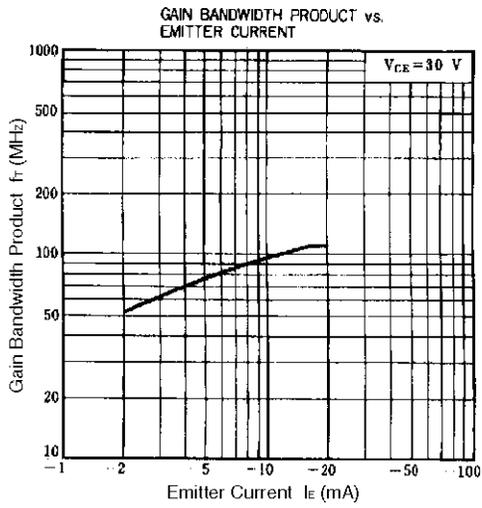
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**ELECTRICAL CHARACTERISTICS (Ta = 25°C)**

Parameter	Symbol	Conditions	MIN.	TYP.	MAX.	Unit
Collector cutoff current	$I_{CBO}$	$V_{CB} = 200\text{ V}, I_E = 0$			100	nA
Emitter cutoff current	$I_{EBO}$	$V_{EB} = 5.0\text{ V}, I_C = 0$			100	nA
DC current gain	$h_{FE}$	$V_{CE} = 6.0\text{ V}, I_C = 5\text{ mA}$	100		250	—
Collector saturation voltage	$V_{CE(sat)}$	$I_C = 5.0\text{ mA}, I_B = 0.5\text{ mA}$		85	500	mV
Base saturation voltage	$V_{BE(sat)}$	$I_C = 5.0\text{ mA}, I_B = 0.5\text{ mA}$		0.68	1.0	V
Gain bandwidth product	$f_T$	$V_{CE} = 30\text{ V}, I_E = -10\text{ mA}$		90		MHz
Output capacitance	$C_{ob}$	$V_{CB} = 30\text{ V}, I_E = 0, f = 1\text{ MHz}$		1.3		pF

**TYPICAL CHARACTERISTICS (Ta = 25°C)**





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