
2SC2855, 2SC2856

Silicon NPN Epitaxial

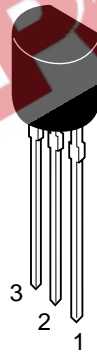
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Application

- Low frequency low noise amplifier
- Complementary pair with 2SA1190 and 2SA1191

Outline

TO-92 (1)



1. Emitter
2. Collector
3. Base

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Absolute Maximum Ratings (Ta = 25°C)

Item	Symbol	2SC2855	2SC2856	Unit
Collector to base voltage	V_{CBO}	90	120	V
Collector to emitter voltage	V_{CEO}	90	120	V
Emitter to base voltage	V_{EBO}	5	5	V
Collector current	I_C	100	100	mA
Emitter current	I_E	-100	-100	mA
Collector power dissipation	P_C	400	400	mW
Junction temperature	T_J	150	150	°C
Storage temperature	T_{stg}	-55 to +150	-55 to +150	°C

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Electrical Characteristics (T_a = 25°C)

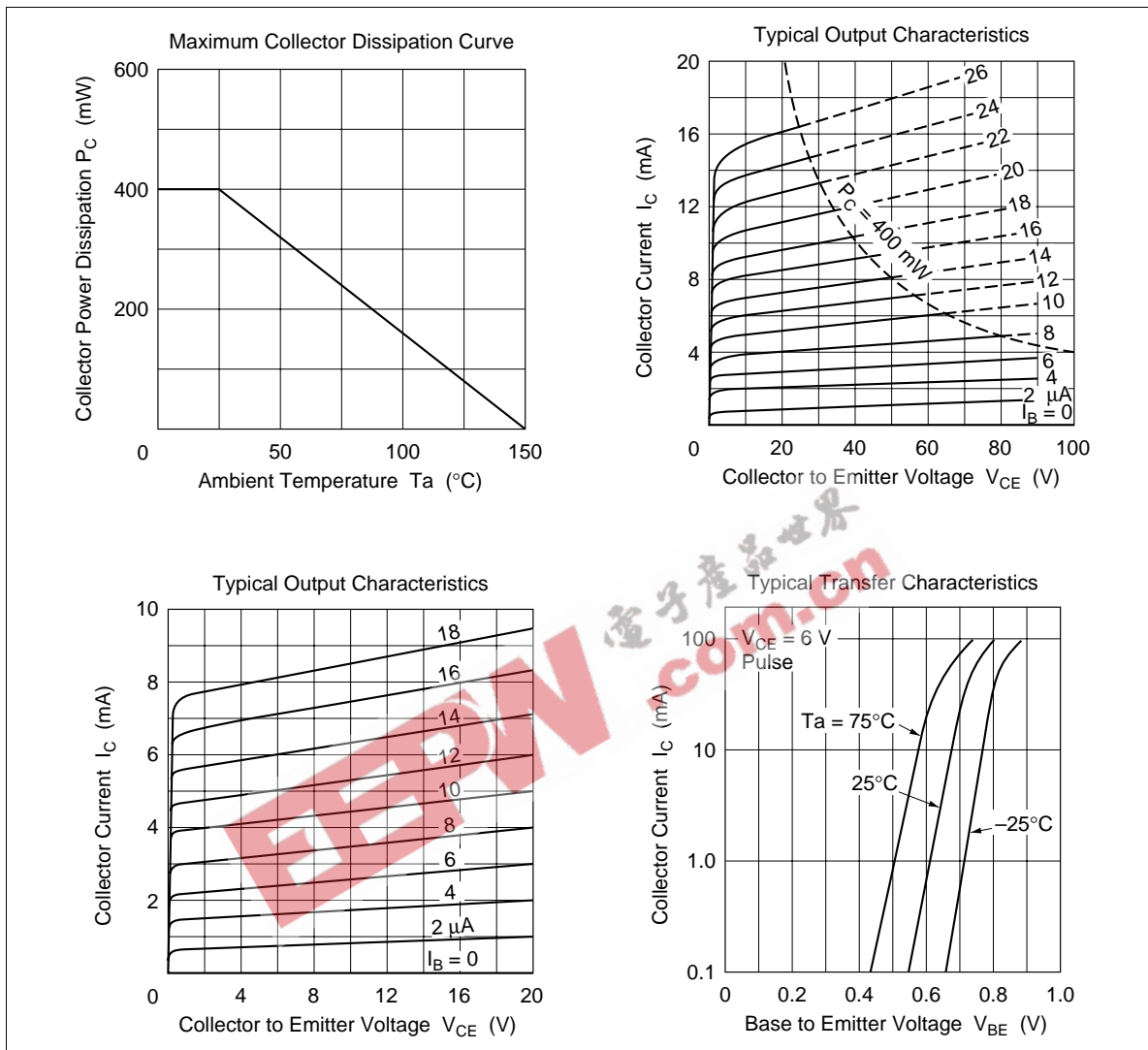
Item	Symbol	2SC2855			2SC2856			Unit	Test conditions
		Min	Typ	Max	Min	Typ	Max		
Collector to base breakdown voltage	V _{(BR)CBO}	90	—	—	120	—	—	V	I _C = 10 μA, I _E = 0
Collector to emitter breakdown voltage	V _{(BR)CEO}	90	—	—	120	—	—	V	I _C = 1 mA, R _{BE} = ∞
Emitter to base breakdown voltage	V _{(BR)EBO}	5	—	—	5	—	—	V	I _E = 10 μA, I _C = 0
Collector cutoff current	I _{CBO}	—	—	0.1	—	—	0.1	μA	V _{CB} = 70 V, I _E = 0
Emitter cutoff current	I _{EBO}	—	—	0.1	—	—	0.1	μA	V _{EB} = 2 V, I _C = 0
DC current transfer ratio	h _{FE} ^{*1}	250	—	800	250	—	800		V _{CE} = 12 V, I _C = 2 mA ^{*2}
Collector to emitter saturation voltage	V _{CE(sat)}	—	0.05	0.10	—	0.05	0.10	V	I _C = 10 mA, I _B = 1 mA ^{*2}
Base to emitter saturation voltage	V _{BE(sat)}	—	0.7	1.0	—	0.7	1.0	V	
Gain bandwidth product	f _T	—	310	—	—	310	—	MHz	V _{CE} = 6 V, I _C = 10 mA
Collector output capacitance	C _{ob}	—	3	—	—	3	—	pF	V _{CB} = 10 V, I _E = 0, f = 1 MHz
Noise figure	NF	—	0.15	1.5	—	0.15	1.5	dB	V _{CE} = 6 V, I _C = 0.1 mA, R _g = 10 kΩ, f = 1 kHz
		—	0.2	2.0	—	0.2	2.0	dB	V _{CE} = 6 V, I _C = 0.1 mA, R _g = 10 kΩ, f = 10 Hz
Noise voltage referred to input	e _n	—	0.7	—	—	0.7	—	nV/√Hz	V _{CE} = 6 V, I _C = 10 mA, R _g = 0, f = 1 kHz

Notes: 1. The 2SC2855 and 2SC2856 are grouped by h_{FE} as follows.

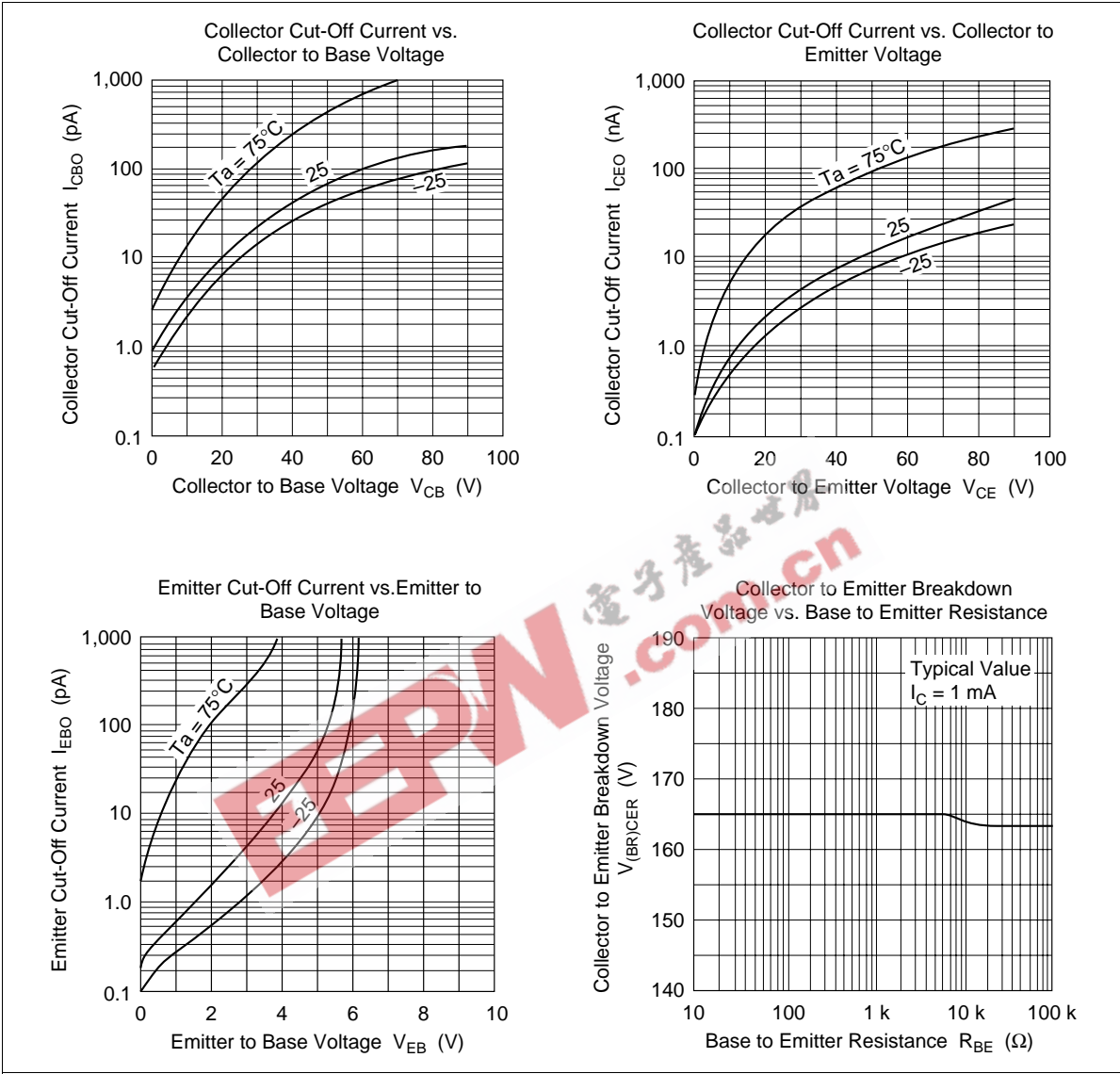
2. Pulse test

D	E
250 to 500	400 to 800

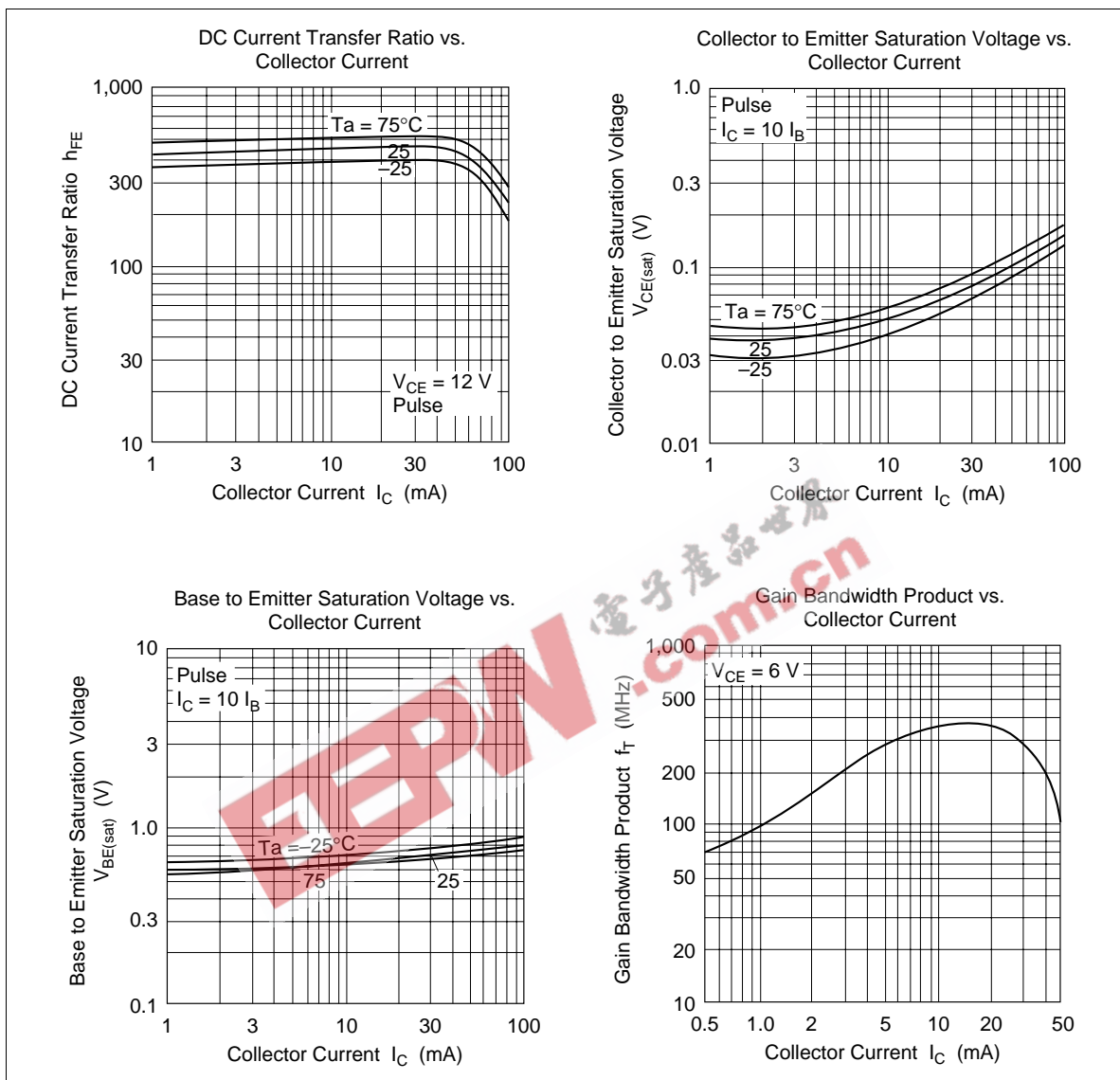
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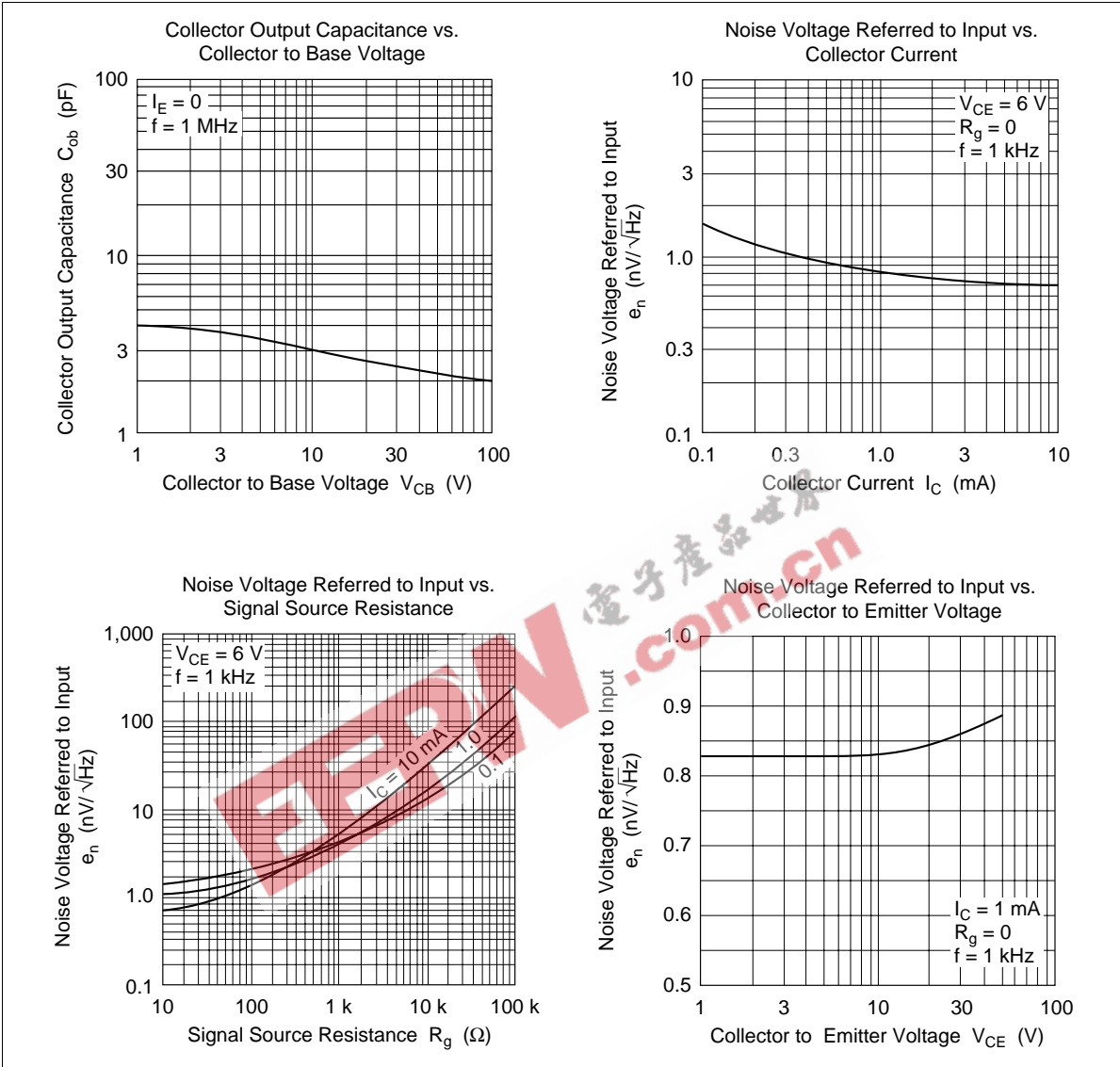


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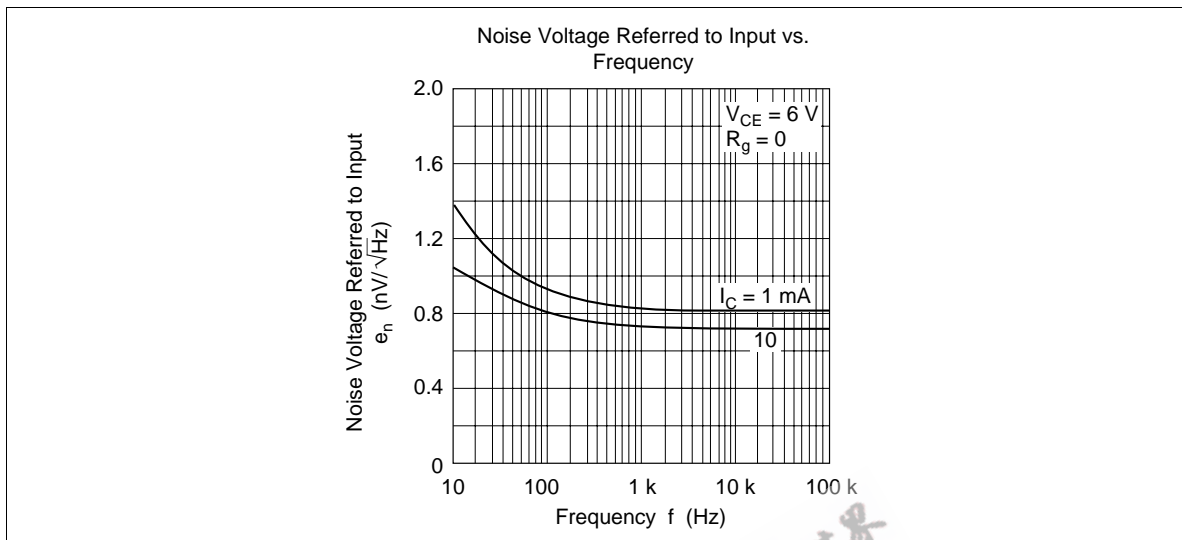


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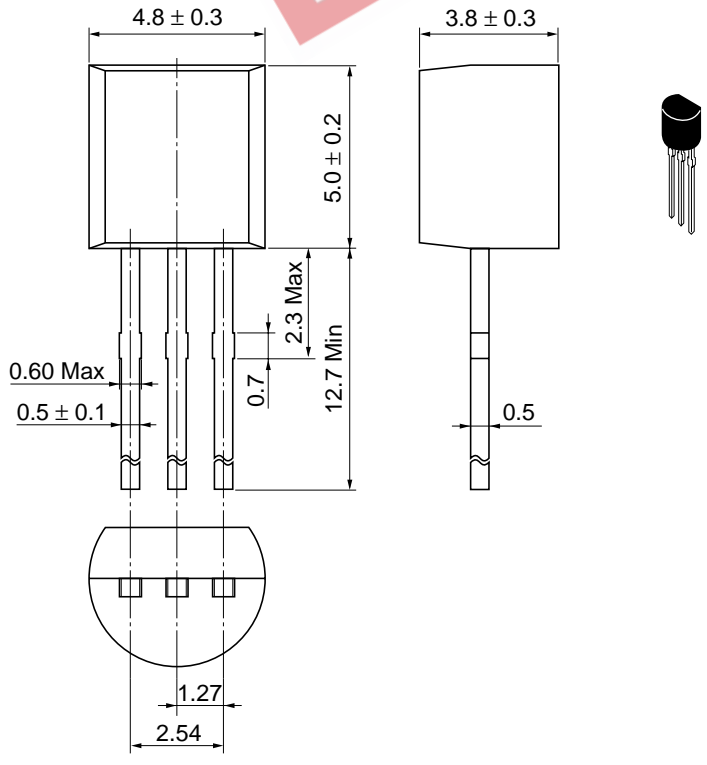
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Unit: mm



Hitachi Code	TO-92 (1)
JEDEC	Conforms
EIAJ	Conforms
Weight (reference value)	0.25 g

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