

SILICON TRANSISTOR 2SC2351

HIGH FREQUENCY LOW NOISE AMPLIFIER NPN SILICON EPITAXIAL TRANSISTOR MINI MOLD

FEATURES

•	NF	1.5 dB	TYP.	@ f = 1.0 GHz

 MAG 14 dB TYP. @ f = 1.0 GHz

ABSOLUTE MAXIMUM RATINGS (TA = 25 °C)

Collector to Base Voltage	Vсво	25	V
Collector to Emitter Voltage	Vceo	12	V
Emitter to Base Voltage	Vebo	3.0	V
Collector Current	lc	70	mA
Total Power Dissipation	Pτ	250	mW
Junction Temperature	Tj	150	°C
Storage Temperature	Tstg	–65 to +150	°C



ELECTRICAL CHARACTERISTICS (TA = 25 °C)

CHARACTERISTIC	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITIONS
Collector Cutoff Current	Ісво			0.1	μA	$V_{CB} = 15 \text{ V}, \text{ I}_{E} = 0$
Emitter Cutoff Current	Іево			0.1	μA	V _{EB} = 2.0 V, I _C = 0
DC Current Gain	hfe	40		200		Vce = 10 V, Ic = 20 mA
Gain Bandwidth Product	fт		4.5		GHz	Vce = 10 V, Ic = 20 mA
Output Capacitance	Cob		0.75	1.0	pF	Vсв = 10 V, IE = 0, f = 1.0 MHz
Insertion Power Gain	S ₂₁ e ²	9	11		dB	Vce = 10 V, Ic = 20 mA, f = 1.0 GHz
Noise Figure	NF		1.5	3.0	dB	Vce = 10 V, lc = 5 mA, f = 1.0 GHz
Maximum Available Gain	MAG		14		dB	Vce = 10 V, Ic = 20 mA, f = 1.0 GHz
hrr Classification						

Classification

Class	E/P *	F/Q *
Marking	R2	R3
hfe	40 to 120	100 to 200

* Old Specification / New Specification

0.9

TYPICAL CHARACTERISTICS (TA = 25 °C)





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NEC devices are classified into the following three quality grades:

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Standard: Computers, office equipment, communications equipment, test and measurement equipment, audio and visual equipment, home electronic appliances, machine tools, personal electronic equipment and industrial robots

Special: Transportation equipment (automobiles, trains, ships, etc.), traffic control systems, anti-disaster systems, anti-crime systems, safety equipment and medical equipment (not specifically designed for life support)

Specific: Aircrafts, aerospace equipment, submersible repeaters, nuclear reactor control systems, life support systems or medical equipment for life support, etc.

The quality grade of NEC devices is "Standard" unless otherwise specified in NEC's Data Sheets or Data Books. If customers intend to use NEC devices for applications other than those specified for Standard quality grade, they should contact an NEC sales representative in advance.

Anti-radioactive design is not implemented in this product.

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