

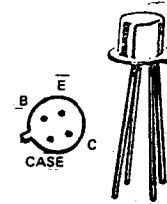
**BF 173**

NPN SILICON PLANAR EPITAXIAL TRANSISTOR

**MICRO ELECTRONICS**

CASE T0-72J

THE BF173 IS AN NPN SILICON PLANAR EPITAXIAL TRANSISTOR INTENDED FOR USE IN VIDEO IF AMPLIFIERS AND PARTICULAR FOR THE OUTPUT STAGES.

ABSOLUTE MAXIMUM RATINGS

Collector-Base Voltage	VCBO	40V
Collector-Emitter Voltage	VCEO	25V
Emitter-Base Voltage	VEBO	4V
Collector Current	IC	25mA
Base Current	IB	2mA
Total Power Dissipation @ TA=45°C	Ptot	200mW
Operating Junction & Storage Temperature	Tj, Tstg	-65 to 175°C

THERMAL RESISTANCE

Junction to Ambient	θja	650°C/W max.
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ELECTRICAL CHARACTERISTICS (TA=25°C)

PARAMETER	SYMBOL	MIN	TYP	MAX	UNIT	TEST CONDITIONS
Collector-Base Breakdown Voltage	BVCBO	40			V	IC=10µA IE=0
Collector-Emitter Breakdown Voltage	LVCEO *	25			V	IC=2mA IB=0
Emitter-Base Breakdown Voltage	BVEBO	4			V	IE=10µA IC=0
Base-Emitter Voltage	VBE *		740	900	mV	IC=7mA VCE=10V
D.C. Current Gain	HFE *	38	90			IC=7mA VCE=10V IC=20mA VCE=2V
Current Gain-Bandwidth Product	fT		550		MHz	IC=5mA VCB=10V f=100MHz
Feedback Capacitance	Cre		0.23		pF	IC=1mA VCB=10V f=10.7MHz
Power Gain	Gpe		26		dB	IC=7.2mA VCE=20V f=36.4MHz

\* Pulse Test : Pulse Width=0.3mS, Duty Cycle=1%

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SMALL SIGNAL Y-PARAMETERS @  $I_C=7mA$   $V_{CE}=10V$   $f=35MHz$

PARAMETER	SYMBOL	MIN	TYP	MAX	UNIT
Input Conductance	$g_{ie}$		4.5		m $\Omega$
Input Capacitance	$C_{ie}$		45		pF
Reverse Transfer Admittance	$ y_{re} $		55		$\mu\Omega$
Phase Angle of Reverse Transfer admittance	$\theta_{re}$		266		deg.
Forward Transfer Admittance	$ y_{fe} $	115	145		m $\Omega$
Phase Angle of Forward Transfer Admittance	$\theta_{fe}$		338		deg.
Output Conductance	$g_{oe}$		65		$\mu\Omega$
Output Capacitance	$C_{oe}$		2.1		pF

This datasheet has been download from:

[www.datasheetcatalog.com](http://www.datasheetcatalog.com)

Datasheets for electronics components.