

2N 5368 through 2N 5375

COMPLEMENTARY SILICON GENERAL PURPOSE AMPLIFIERS AND SWITCHES

THE ABOVE TYPES ARE SILICON PLANAR EPITAXIAL TRANSISTORS FOR GENERAL PURPOSE AMPLIFIERS AND MEDIUM SPEED SWITCHING APPLICATIONS.

CASE TO-92F



ABSOLUTE MAXIMUM RATINGS

	2N5368 (NPN)	2N5372 (PNP)	2N5371 (NPN)
Collector-Base Voltage	VCBO 60V	60V	40V
Collector-Emitter Voltage	VCEO 30V	30V	30V
Emitter-Base Voltage	VEBO 5V	5V	5V
Collector Current	IC 500mA	500mA	500mA
Total Power Dissipation (TA ≤ 25°C)	Ptot	500mW **	derate 4mW/°C above 25°C

Operating Junction & Storage Temperature Tj, Tstg -55 to 150°C

** 360mW in JEDEC registration.

ELECTRICAL CHARACTERISTICS (TA=25°C unless otherwise noted)

PARAMETER	SYMBOL	MIN	TYP	MAX	UNIT	TEST CONDITIONS
Collector-Base Breakdown Voltage	BVCEO	↑			V	IC=0.01mA IB=0
Collector-Emitter Breakdown Voltage	LVCEO *	Note 1			V	IC=10mA IB=0
Emitter-Base Breakdown Voltage	BVEBO	↓			V	IE=0.01mA IC=0
Collector Cutoff Current	ICBO			50	nA	VCB=40V IE=0
2N5368, 69, 70				50	nA	VCB=40V IE=0
2N5372, 73, 74				50	nA	VCB=30V IE=0
2N5371, 75				50	nA	VCB=30V IE=0
Emitter Cutoff Current	IEBO			50	nA	VEB=3V IC=0
Collector-Emitter Saturation Voltage	VCE(sat) *		0.18	0.3	V	IC=150mA IB=15mA
Base-Emitter Saturation Voltage	VBE(sat) *		0.84	1.3	V	IC=150mA IB=15mA
Base-Emitter Voltage	VBE *		0.8	1.2	V	IC=150mA VCE=10V
Current Gain-Bandwidth Product	fT				MHz	IC=20mA VCE=10V
2N5368 thru' 2N5371		250	370		MHz	IC=20mA VCE=10V
2N5372 thru' 2N5375		150	270		MHz	IC=20mA VCE=10V
Collector-Base Capacitance	Ccb			8	pF	VCB=10V IE=0
2N5368 thru' 2N5371				10	pF	f=1MHz
2N5372 thru' 2N5375				10	pF	f=1MHz

Note 1: Equal to the values of absolute maximum ratings.
Pulse Test: Pulse Width=0.3ms, Duty Cycle=1%

For p-n-p devices, voltage and current values are negative.

