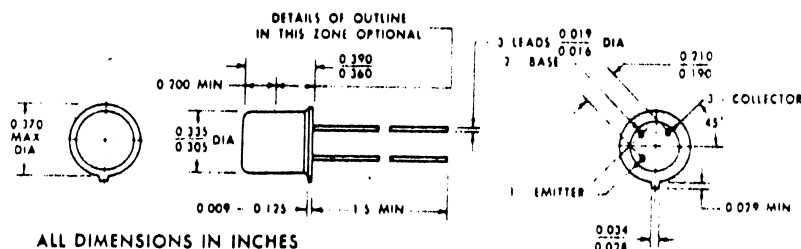


TYPES 2N339, 2N340, 2N341, 2N342, 2N342A, 2N343

N-P-N GROWN SILICON TRANSISTORS

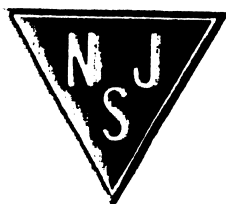


Absolute maximum ratings at 25°C case temperature (unless otherwise noted)

*Collector Current	60 ma
*Total Device Dissipation (see note 1)	1000 mw
*Total Device Dissipation at 100°C Case Temperature (see note 1)	400 mw
*Total Device Dissipation at 125°C Case Temperature (see note 1)	200 mw
*Storage and Operating Collector Junction Temperature Range	-65° to +150°C
Storage and Operating Collector Junction Temperature Range (TI Guarantee)	-65° to +175°C

Electrical characteristics at 25°C case temperature (unless otherwise noted)

parameter	test conditions	2N339		2N340		2N341		2N342		2N342A		2N343		unit
		min	max	min	max	min	max	min	max	min	max	min	max	
I_{CBO} Collector Cutoff Current	$V_{CB} = 30 \text{ v}$ $I_E = 0$		1		1		1		1		1		1	μA
I_{CBO} Collector Cutoff Current	$V_{CB} = 30 \text{ v}$ $I_E = 0$ $T_C = +150^\circ\text{C}$		250		250		250		250		250		250	μA
V_{CBO} Collector-Base Breakdown Voltage	$I_C = 50 \mu\text{A}$ $I_E = 0$	55		85		125		60		85		60		v
V_{CEO} Collector-Emitter Breakdown Voltage	$I_C = 100 \mu\text{A}$ $I_B = 0$	55		85		85		60		85		60		v
V_{EBO} Emitter-Base Breakdown Voltage	$I_E = 100 \mu\text{A}$ $I_C = 0$	1		1		1		1		1		1		v
$r_{CE(sat)}$ DC Collector-Emitter Saturation Resistance	$I_B = 3 \text{ ma}$ $I_C = 20 \text{ ma}$		300		350		400		350		350		350	ohm
h_{fb} AC Common-Base Forward Current Transfer Ratio	$V_{CB} = 10 \text{ v}$ $I_E = -5 \text{ ma}$ $f = 1 \text{ kc}$	-0.9	-0.989	-0.9	-0.989	-0.9	-0.989	-0.9	-0.97	-0.9	-0.97	-0.966	-0.989	—
h_{ib} AC Common-Base Input Impedance	$V_{CB} = 10 \text{ v}$ $I_E = -5 \text{ ma}$ $f = 1 \text{ kc}$		30		30		30		30		30		30	ohm
h_{ob} AC Common Base Output Admittance	$V_{CB} = 10 \text{ v}$ $I_E = -5 \text{ ma}$ $f = 1 \text{ kc}$		2		2		2		2		2		2	μmho
h_{rb} AC Common Base Reverse Voltage Transfer Ratio	$V_{CB} = 10 \text{ v}$ $I_E = -5 \text{ ma}$ $f = 1 \text{ kc}$		300 $\times 10^{-6}$		300 $\times 10^{-6}$		300 $\times 10^{-6}$		300 $\times 10^{-6}$		300 $\times 10^{-6}$		300 $\times 10^{-6}$	—



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