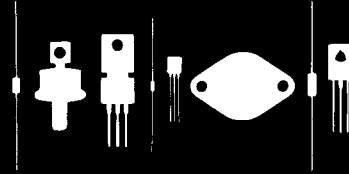


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145 Adams Avenue
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2N5334
2N5335

NPN SILICON TRANSISTOR

JEDEC TO-39 CASE

DESCRIPTION

The CENTRAL SEMICONDUCTOR 2N5334, 2N5335 types are Silicon NPN Transistors designed for high current, fast switching and amplifier applications.

MAXIMUM RATINGS ($T_C=25^\circ\text{C}$)

	SYMBOL	2N5334	2N5335	UNIT
Collector-Base Voltage	V_{CB0}	60	80	V
Collector-Emitter Voltage	V_{CE0}	60	80	V
Emitter-Base Voltage	V_{EB0}	8.0	8.0	V
Collector Current	I_C		3.0	A
Base Current	I_B		0.5	A
Power Dissipation	PD		6.0	W
Operating and Storage Temperature	T_J, T_{stg}	-65 TO +200		$^\circ\text{C}$
Thermal Resistance	θ_{JC}		29.0	$^\circ\text{C/W}$

ELECTRICAL CHARACTERISTICS ($T_C=25^\circ\text{C}$ unless otherwise noted)

SYMBOL	TEST CONDITIONS	2N5334		2N5335		UNIT
		MIN	MAX	MIN	MAX	
I_{CB0}	$V_{CB}=60\text{V}$		5.0	-		μA
I_{CB0}	$V_{CB}=80\text{V}$		-	5.0		μA
I_{CEV}	$V_{CE}=60\text{V}, V_{EB(OFF)}=1.5\text{V}$		1.0	-		μA
I_{CEV}	$V_{CE}=80\text{V}, V_{EB(OFF)}=1.5\text{V}$		-	1.0		μA
I_{CEV}	$V_{CE}=60\text{V}, V_{EB(OFF)}=1.5\text{V} (T_C=150^\circ\text{C})$		500	-		μA
I_{CEV}	$V_{CE}=80\text{V}, V_{EB(OFF)}=1.5\text{V} (T_C=150^\circ\text{C})$		-	500		μA
I_{EBO}	$V_{EB}=8.0\text{V}$		100	100		μA
BV_{CEO}	$I_C=50\text{mA}$	60		80		V
$V_{CE(SAT)}$	$I_C=2.0\text{A}, I_B=0.2\text{A}$		0.7	0.7		V
$V_{CE(SAT)}$	$I_C=3.0\text{A}, I_B=0.6\text{A}$		1.8	1.8		V
$V_{BE(SAT)}$	$I_C=2.0\text{A}, I_B=0.2\text{A}$		1.5	1.5		V
$V_{BE(ON)}$	$V_{CE}=2.0\text{V}, I_C=2.0\text{A}$		1.5	1.5		V
$V_{BE(ON)}$	$V_{CE}=2.0\text{V}, I_C=3.0\text{A}$		1.8	1.8		V
h_{FE}	$V_{CE}=2.0\text{V}, I_C=1.0\text{A}$	30	150	30	150	
h_{FE}	$V_{CE}=2.0\text{V}, I_C=2.0\text{A}$	15		15		
f_T	$V_{CE}=10\text{V}, I_C=0.1\text{A}, f=10\text{MHz}$	40		40		MHz
C_{ob}	$V_{CB}=10\text{V}, I_E=0, f=100\text{kHz}$		75	75		pF
C_{ib}	$V_{BE}=2.0\text{V}, I_C=0, f=100\text{kHz}$		250	250		pF
t_{on}	$V_{CC}=20\text{V}, V_{EB(OFF)}=3.7\text{V}, I_C=1.0\text{A}, I_{B1}=I_{B2}=100\text{mA}$		100	100		ns
t_{off}	$V_{CC}=20\text{V}, V_{EB(OFF)}=3.7\text{V}, I_C=1.0\text{A}, I_{B1}=I_{B2}=100\text{mA}$		1050	1050		ns