

ELECTRICAL CHARACTERISTICS:
(25°C Case Temperature Unless Otherwise Noted)

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	VALUE		Units
			Min.	Max.	
$V_{CEO(sus)}^*$	Collector-Emitter Sustaining Voltage	$I_C = 0.2 \text{ Amp}$ (Notes 1 and 2)	300	----	Volts
$V_{CER(sus)}$	Collector-Emitter Sustaining Voltage	$I_C = 0.2A$, $R_{BE} = 50\Omega$ (Notes 1 and 2)	400	----	Volts
I_{CEV}^*	Collector Cutoff Current	$V_{CE} = 450V$, $V_{BE} = -1.5V$	----	1.0	mA.
I_{CEV}^*	Collector Cutoff Current	$V_{CE} = 300V$, $V_{BE} = -1.5V$ $T_C = 150^\circ C$	----	3.0	mA.
I_{CEO}^*	Collector Cutoff Current	$V_{CE} = 150V$, $I_B = 0$	----	5.0	mA.
I_{EB0}^*	Emitter Cutoff Current	$V_{EB} = 6V$, $I_C = 0$	----	0.5	mA.
h_{FE}^*	DC Forward Current Transfer Ratio (Note 1)	$I_C = 0.1A$, $V_{CE} = 10V$ $I_C = 1.0A$, $V_{CE} = 10V$ $I_C = 1.0A$, $V_{CE} = 2V$	40 25 8	---- 100 80	---- ---- ----
$V_{CE(sat)}^*$	Collector-Emitter Saturation Voltage (Note 1)	$I_C = 1.0A$, $I_B = 0.125A$	----	0.75	Volts
$V_{BE(sat)}^*$	Base-Emitter Saturation Voltage (Note 1)	$I_C = 1.0A$, $I_B = 0.10A$	----	1.4	Volts
$I_{S/b}$	Second-Breakdown Collector Current (with base forward biased)	$V_{CE} = 100V$, $t = 1.0\text{sec.}$	0.35	----	A
$E_{S/b}^*$	Second-Breakdown Energy (with base reverse biased)	$V_{EB} = 4V$, $R_{BE} = 20\Omega$, $L = 100\mu h$	200	----	μJ
h_{fe}^*	Common-Emitter Small-Signal Forward Current Transfer Ratio	$V_{CE} = 10V$, $I_C = 0.2A$, $f = 5 \text{ MHz}$	3	----	----
$ h_{fe} ^*$	Common-Emitter Small-Signal Forward Current Transfer Ratio, $f = 5 \text{ MHz}$	$V_{CE} = 10V$, $I_C = 0.2A$	2.0	----	----
C_{Ob}	Collector-Base Capacitance	$V_{CB} = 10V$, $I_E = 0$, $f = 1.0\text{MHz}$	----	120	pf
tr^*	Rise Time	$I_C = 1.0A$, $I_{B2} = 0.10A$	----	3.0	$\mu\text{sec.}$
ts^*	Storage Time	$I_C = 1.0A$, $I_{B1} = I_{B2} = 0.10A$	----	4.0	$\mu\text{sec.}$
tf^*	Fall Time	$I_C = 1.0A$, $I_{B1} = I_{B2} = 0.10A$	----	3.0	$\mu\text{sec.}$

Note 1: Pulse Test: Pulse width = $300\mu\text{Sec.}$, Rep. Rate 60Hz.

Note 2: Caution - Do not use Curve Tracer.

* Indicates JEDEC registered data.

PACKAGE MECHANICAL DATA:

