ELECTRICAL CHARACTERISTICS (con't)

Characteristics		Symbol	Min.	Max.	Unit
Collector-Emitter Cutoff Current					
V_{CE} = 60 Vdc	2N3715	I_{CES}		1.0	mAdc
V_{CE} = 80 Vdc	2N3716			1.0	
ON CHARACTERISTICS (3)					
Forward-Current Transfer Ratio					
I_C = 1.0 Adc, V_{CE} = 2.0 Vdc		h_{FE}	50	150	
I_C = 3.0 Adc, V_{CE} = 2.0 Vdc			30	120	
I_C = 5.0 Adc, V_{CE} = 2.0 Vdc			10		
I_C = 10 Adc, V_{CE} = 4.0 Vdc			5.0		
Collector-Emitter Saturation Voltage					
I_C = 5.0 Adc, I_B = 0.5 Adc		$V_{CE(sat)}$		1.0	Vdc
I_C = 10 Adc, I_B = 2.0 Adc				2.5	
Base-Emitter Saturation Voltage					
I_C = 5.0 Adc, I_B = 0.5 Adc		$V_{BE(sat)}$		1.5	
I_C = 10 Adc, I_B = 2.0 Adc				3.0	Vdc
DYNAMIC CHARACTERISTICS					
Magnitude of Common Emitter Small-Signal Short Circuit Forward Current Transfer Ratio		$\lvert h_{fe} \rvert$	4.0	20	
I_C = 0.5 Adc, V_{CE} = 10 Vdc, f = 100 kHz – 1.0 MHz					
Forward Current Transfer Ratio					
I_C = 0.5 Adc, V_{CE} = 10 Vdc, f = 1.0 kHz		h_{fe}	30	300	
Output Capacitance					
V_{CB} = 10 Vdc, I_E = 0, f = 1.0 MHz		C_{obo}		500	pF

SAFE OPERATING AREA

DC Tests

T_C = +25^{0}C, 1 Cycle, t ≥ 1.0 s

Test 1

V_{CE} = 15 Vdc, I_C = 10 Adc

Test 2

V_{CE} = 40 Vdc, I_C = 3.75 Adc

Test 3

V_{CE} = 55 Vdc, I_C = 0.9 Adc 2N3715

V_{CE} = 65 Vdc, I_C = 0.9 Adc 2N3716

(3) Pulse Test: Pulse Width = 300μs, Duty Cycle ≤ 2.0%.