

2N3441 JAN SERIES

ELECTRICAL CHARACTERISTICS (con't)

Characteristics	Symbol	Min.	Max.	Unit
ON CHARACTERISTICS ⁽³⁾				
Forward-Current Transfer Ratio I _C = 50 mAdc, V _{CE} = 4.0 Vdc I _C = 0.5 Adc, V _{CE} = 4.0 Vdc I _C = 1.0 Adc, V _{CE} = 4.0 Vdc	h _{FE}	50 25 10	100	
Collector-Emitter Saturation Voltage I _C = 0.5 Adc, I _B = 50 mAdc	V _{CE(sat)}		1.0	Vdc
Base-Emitter Voltage I _C = 0.5 Adc, V _{CE} = 4.0 Vdc	V _{BE(on)}		1.7	Vdc

DYNAMIC CHARACTERISTICS

Magnitude of Common Emitter Small-Signal Short-Circuit Forward Current Transfer Ratio I _C = 0.5 Adc, V _{CE} = 4.0 Vdc, f = 100 kHz	h _{fe}	4.0	40	
Small-Signal Short-Circuit Forward Current Transfer Ratio I _C = 0.5 Adc, V _{CE} = 4.0 Vdc	h _{fe}	15	100	
Output Capacitance V _{CB} = 10 Vdc, I _E = 0, 100 kHz ≤ f ≤ 1.0 MHz	C _{obo}		300	pF

SWITCHING CHARACTERISTICS

Turn-On Time V _{CC} = 30 Vdc; I _C = 0.5 Adc; I _B = 50 mAdc	t _{on}		8.0	μs
Turn-Off Time V _{CC} = 30 Vdc; I _C = 0.5 Adc; I _B = -I _B = 50 mAdc	t _{off}		15	μs

SAFE OPERATING AREA

DC Tests T _C = +25°C, 1 Cycle, t = 1.0 s Test 1 V _{CE} = 8.33 Vdc, I _C = 3.0 Adc Test 2 V _{CE} = 30 Vdc, I _C = 833 mAdc Test 3 V _{CE} = 140 Vdc, I _C = 178.5 mAdc

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