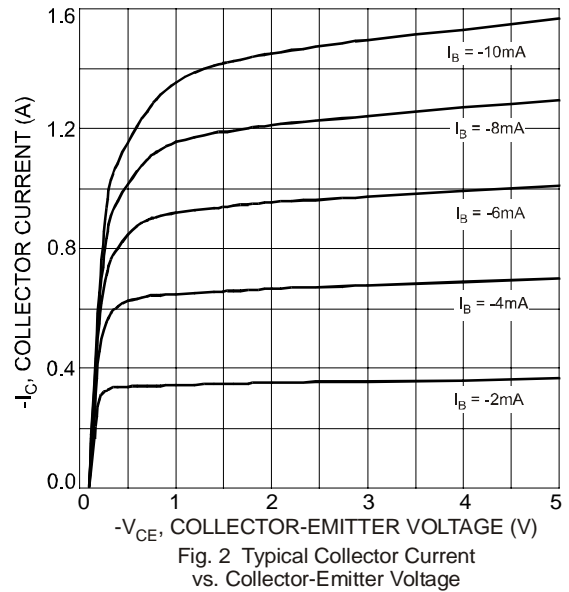
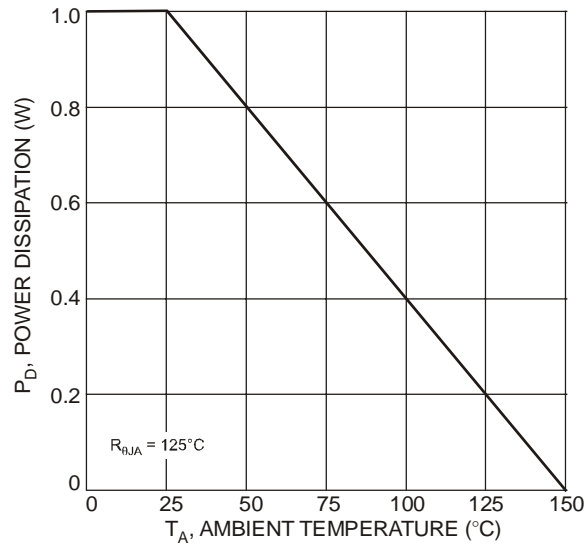


## Electrical Characteristics @T<sub>A</sub> = 25°C unless otherwise specified

Characteristic	Symbol	Min	Typ	Max	Unit	Test Conditions
OFF CHARACTERISTICS (Note 4)						
Collector-Base Breakdown Voltage	V <sub>(BR)CBO</sub>	-80	—	—	V	I <sub>C</sub> = -100μA, I <sub>E</sub> = 0
Collector-Emitter Breakdown Voltage	V <sub>(BR)CEO</sub>	-60	—	—	V	I <sub>C</sub> = -10mA, I <sub>B</sub> = 0
Emitter-Base Breakdown Voltage	V <sub>(BR)EBO</sub>	-5	—	—	V	I <sub>E</sub> = -100μA, I <sub>C</sub> = 0
Collector Cutoff Current	I <sub>CBO</sub>	—	—	-0.1 -10	μA	V <sub>CB</sub> = -60V, I <sub>E</sub> = 0 V <sub>CB</sub> = -60V, I <sub>E</sub> = 0, T <sub>A</sub> = 100°C
Emitter Cutoff Current	I <sub>EBO</sub>	—	—	-0.1	μA	V <sub>EB</sub> = -4V, I <sub>C</sub> = 0
ON CHARACTERISTICS (Note 4)						
Collector-Emitter Saturation Voltage	V <sub>CE(SAT)</sub>	— —	-0.08 -0.2	-0.3 -0.6	V	I <sub>C</sub> = -1A, I <sub>B</sub> = -100mA I <sub>C</sub> = -3A, I <sub>B</sub> = -300mA
Base-Emitter Saturation Voltage	V <sub>BE(SAT)</sub>	—	-0.9	-1.25	V	I <sub>C</sub> = -1A, I <sub>B</sub> = -100mA
Base-Emitter Turn-On Voltage	V <sub>BE(ON)</sub>	—	-0.8	-1	V	V <sub>CE</sub> = -2V, I <sub>C</sub> = -1A
DC Current Gain	h <sub>FE</sub>	70 100 80 40	200 180 160 140	— 300 — —	—	V <sub>CE</sub> = -2V, I <sub>C</sub> = -50mA V <sub>CE</sub> = -2V, I <sub>C</sub> = -500mA V <sub>CE</sub> = -2V, I <sub>C</sub> = -1A V <sub>CE</sub> = -2V, I <sub>C</sub> = -2A
AC CHARACTERISTICS						
Transition Frequency	f <sub>T</sub>	100	145	—	MHz	V <sub>CE</sub> = -10V, I <sub>C</sub> = -50mA, f = 100MHz
Output Capacitance	C <sub>obo</sub>	—	—	30	pF	V <sub>CB</sub> = -10V, f = 1MHz
Switching Times	t <sub>on</sub> t <sub>off</sub>	— —	45 200	— —	ns ns	I <sub>C</sub> = -500mA, V <sub>CC</sub> = -10V I <sub>B1</sub> = I <sub>B2</sub> = -50mA

Notes: 4. Measured under pulsed conditions. Pulse width = 300μs. Duty cycle ≤2%.



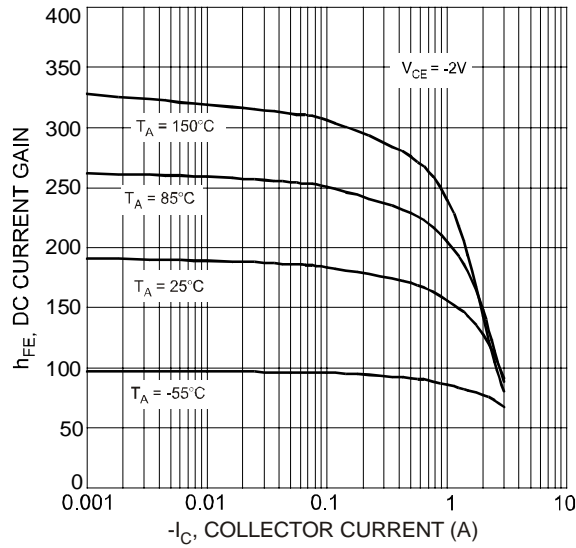


Fig. 3 Typical DC Current Gain vs. Collector Current

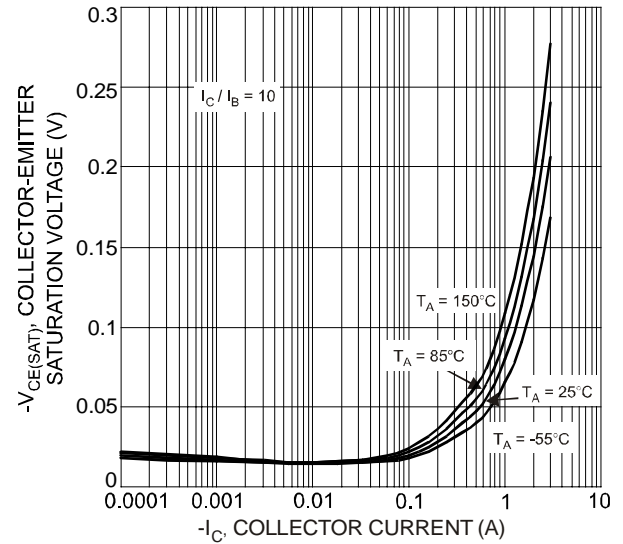


Fig. 4 Typical Collector-Emitter Saturation Voltage vs. Collector Current

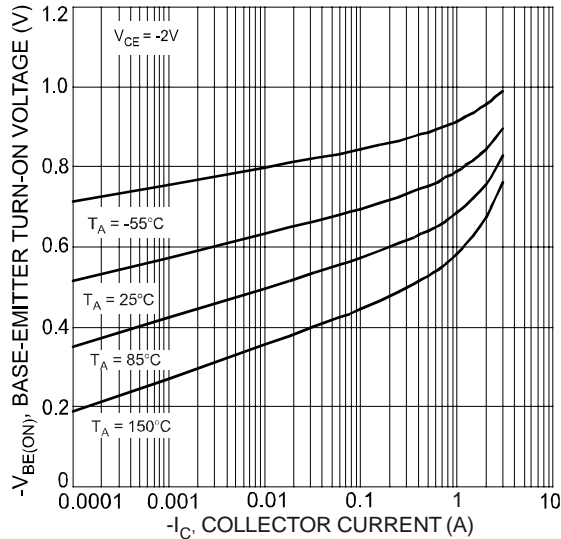


Fig. 5 Typical Base-Emitter Turn-On Voltage vs. Collector Current

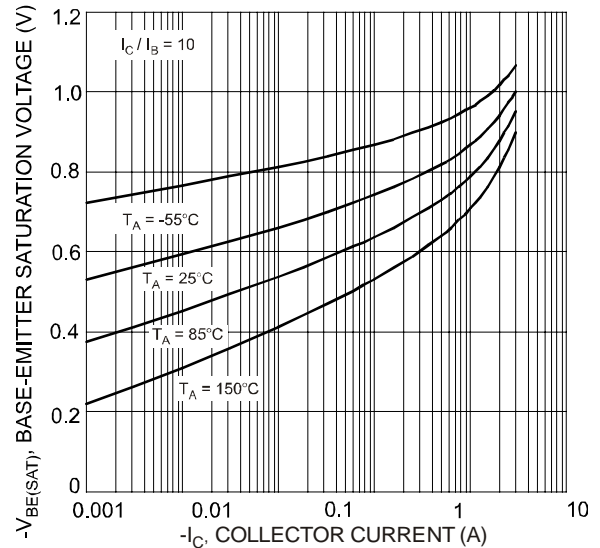


Fig. 6 Typical Base-Emitter Saturation Voltage vs. Collector Current

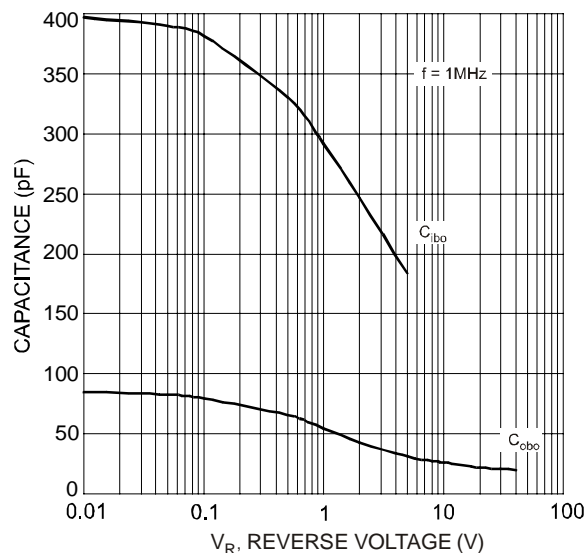


Fig. 7 Typical Capacitance Characteristics

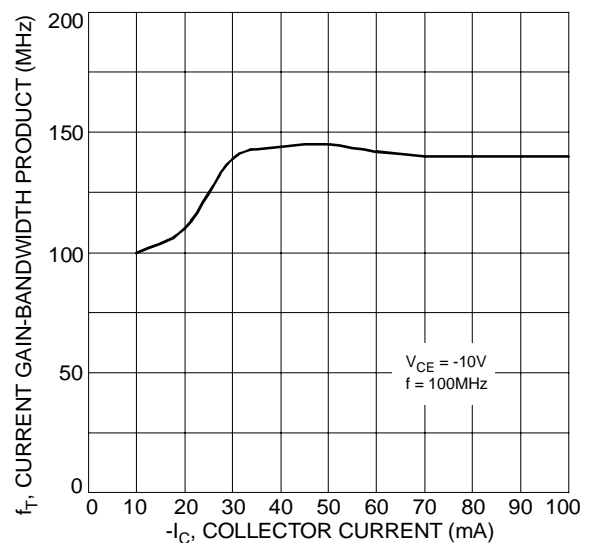


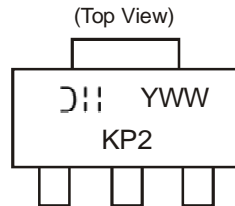
Fig. 8 Typical Gain-Bandwidth Product vs. Collector Current

## Ordering Information (Note 5)

Device	Packaging	Shipping
DXT751-13	SOT89-3L	2500/Tape & Reel

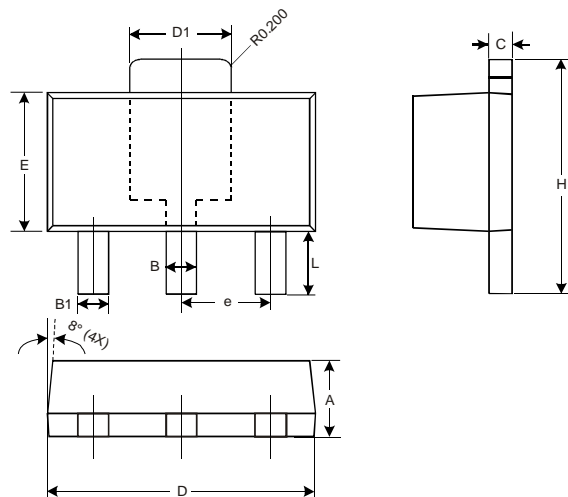
Notes: 5. For packaging details, go to our website at <http://www.diodes.com/ap02007.pdf>.

## Marking Information



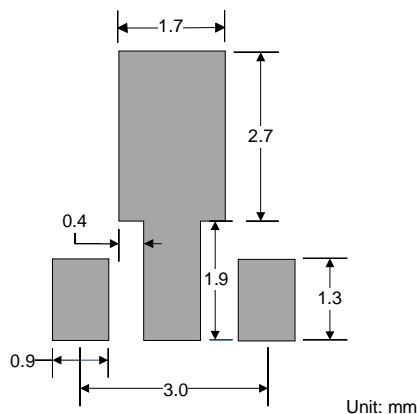
KP2 = Product Type Marking Code  
YWW = Date Code Marking  
Y = Last digit of year ex: 7 = 2007  
WW = Week code 01 - 52

## Package Outline Dimensions



SOT89-3L			
Dim	Min	Max	Typ
A	1.40	1.60	1.50
B	0.45	0.55	0.50
B1	0.37	0.47	0.42
C	0.35	0.43	0.38
D	4.40	4.60	4.50
D1	1.50	1.70	1.60
E	2.40	2.60	2.50
e	—	—	1.50
H	3.95	4.25	4.10
L	0.90	1.20	1.05
All Dimensions in mm			

## Suggested Pad Layout



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