

### **Typical Characteristics** @TA = 25°C unless otherwise specified

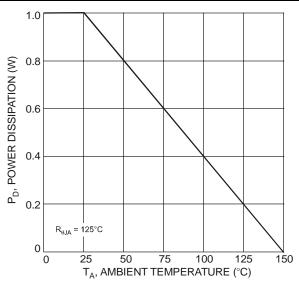
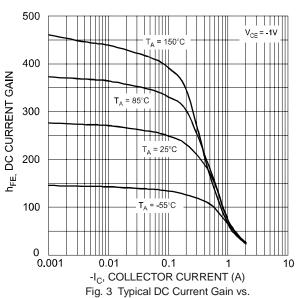


Fig. 1 Power Dissipation vs. Ambient Temperature (Note 3)



-V<sub>BE(ON)</sub>, BASE-EMITTER TURN-ON VOLTAGE (V)  $V_{CE} = -1V$ 1.0 = -55°C T<sub>A</sub> = 25°C = 85°C T<sub>A</sub> = 150°C 0.2 0.001

0.1

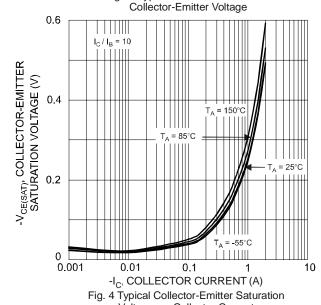
-I<sub>C</sub>, COLLECTOR CURRENT (A)

Fig. 5 Typical Base-Emitter Turn-On

Voltage vs. Collector Current

Collector Current

I<sub>B</sub> = 10mA -I<sub>C</sub>, COLLECTOR CURRENT (A) 1.2  $I_B = 6mA$ 8.0  $I_B = 4mA$ 0.4 = 2mA  $I_B = 1mA$ 0.0 0 10 -V<sub>CE</sub>, COLLECTOR-EMITTER VOLTAGE (V) Fig. 2 Typical Collector Current vs.

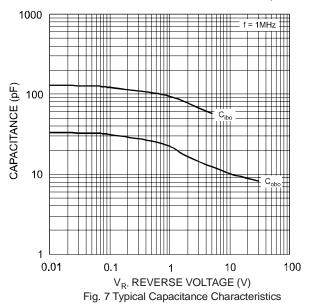


Voltage vs. Collector Current BASE-EMITTER SATURATION VOLTAGE (V) 1.2  $I_{\rm C} / I_{\rm B} = 10$ 1.0 8.0 0.6 0.4  $T_A = 85^{\circ}C$ 0.2 -V<sub>BE(SAT)</sub>, t 0 0.001 0.01 0.1 10 -I<sub>C</sub>, COLLECTOR CURRENT (A) Fig. 6 Typical Base-Emitter Saturation Voltage vs. Collector Current

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### NOT RECOMMENDED FOR NEW DESIGNS, USE DCP69/-16



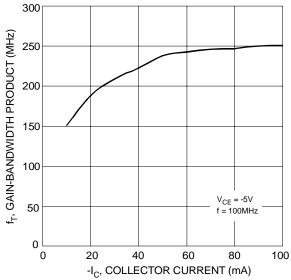


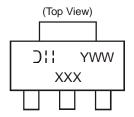
Fig. 8 Typical Gain-Bandwidth Product vs. Collector Current

### **Ordering Information** (Note 5)

Device	Packaging	Shipping
DCP69A-13	SOT-223	2500/Tape & Reel
DCP69A-16-13	SOT-223	2500/Tape & Reel

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

## **Marking Information**

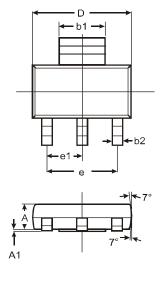


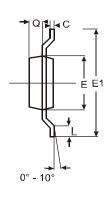
XXX = Product type marking code ex.

P12A = DCP69AP12A-16 = DCP69A-16

☐ = Manufacturer's code marking YWW = Date code marking Y = Last digit of year ex: 7 = 2007WW = Week code 01 - 52

# **Package Outline Dimensions**



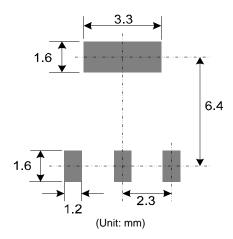


SOT-223			
Dim	Min	Max	Тур
Α	1.55	1.65	1.60
<b>A</b> 1	0.010	0.15	0.05
b1	2.90	3.10	3.00
b2	0.60	0.80	0.70
С	0.20	0.30	0.25
D	6.45	6.55	6.50
E	3.45	3.55	3.50
E1	6.90	7.10	7.00
е	_	_	4.60
e1	_	_	2.30
L	0.85	1.05	0.95
ø	0.84	0.94	0.89
All Dimensions in mm			



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# Suggested Pad Layout (Based on IPC-SM-782)



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