Electrical Characteristics @T_A = 25°C unless otherwise specified

Characteristic	Symbol	Min	Typ	Max	Unit	Test Conditions
OFF CHARACTERISTICS (Note 4)						
Collector-Base Cutoff Current	I_{CBO}	—	—	-100	nA	V_{CB} = -50V, I_E = 0
		—	—	-50	μA	V_{CB} = -50V, I_E = 0, T_A = 150°C
Emitter-Base Cutoff Current	I_{EBO}	—	—	-100	nA	V_{EB} = -5V, I_C = 0
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	-50	—	—	V	I_C = -100μA
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	-50	—	—	V	I_C = -10mA
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	-5	—	—	V	I_E = -100μA
ON CHARACTERISTICS (Note 4)						
DC Current Gain	h_{FE}	200	—	—	—	V_{CE} = -2V, I_C = -0.5A
		200	—	—		V_{CE} = -2V, I_C = -1A
		100	—	—		V_{CE} = -2V, I_C = -2A
Collector-Emitter Saturation Voltage	$V_{CE(SAT)}$	—	—	-100	mV	I_C = -0.5A, I_B = -50mA
		—	—	-180		I_C = -1A, I_B = -50mA
		—	—	-300		I_C = -2A, I_B = -200mA
Equivalent On-Resistance	$R_{CE(SAT)}$	—	67	150	mΩ	I_E = -2A, I_B = -200mA
Base-Emitter Saturation Voltage	$V_{BE(SAT)}$	—	—	-1.2	V	I_C = -2A, I_B = -200mA
Base-Emitter Turn-on Voltage	$V_{BE(ON)}$	—	—	-1.1	V	V_{CE} = -2V, I_C = -1A
SMALL SIGNAL CHARACTERISTICS						
Transition Frequency	f_T	100	—	—	MHz	V_{CE} = -5V, I_C = -100mA, f = 100MHz
Output Capacitance	C_{obo}	—	—	40	pF	V_{CB} = -10V, f = 1MHz

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

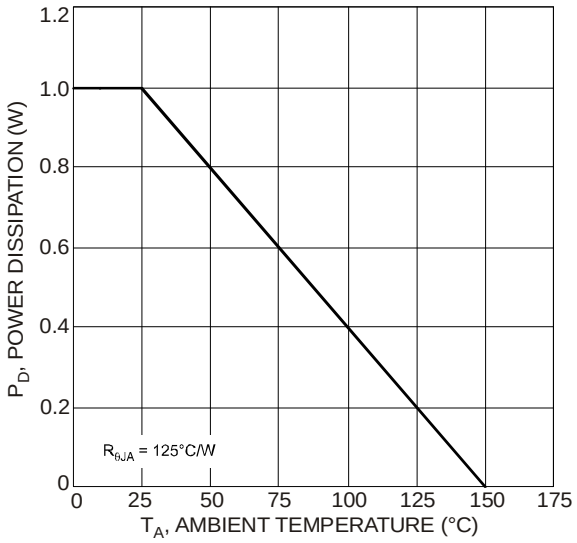


Fig. 1 Power Dissipation vs. Ambient Temperature (Note 3)

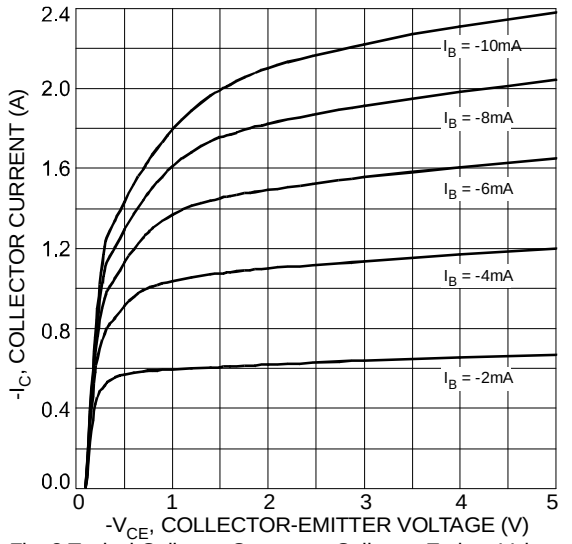


Fig. 2 Typical Collector Current vs.Collector-Emitter Voltage

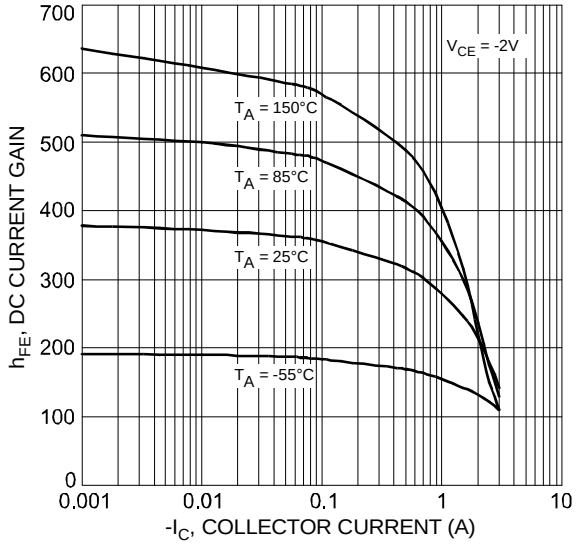


Fig. 3 Typical DC Current Gain vs. Collector Current

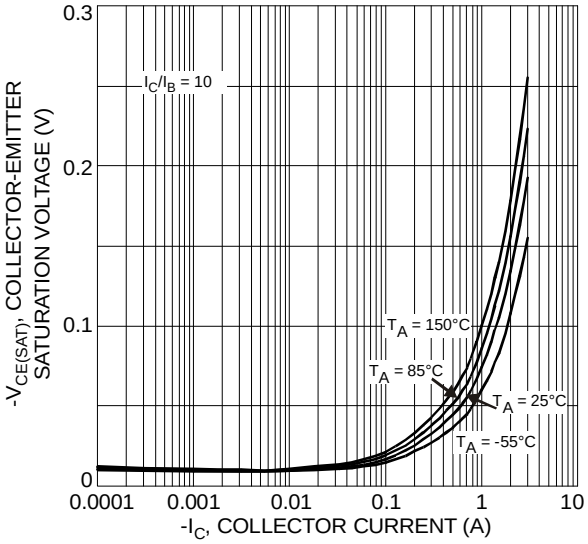


Fig. 4 Typical Collector-Emitter Saturation Voltage vs. Collector Current

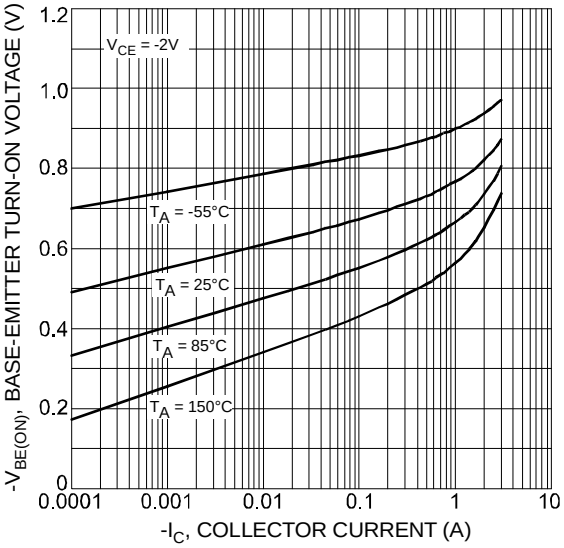


Fig. 5 Typical Base-Emitter Turn-On Voltage vs. Collector Current

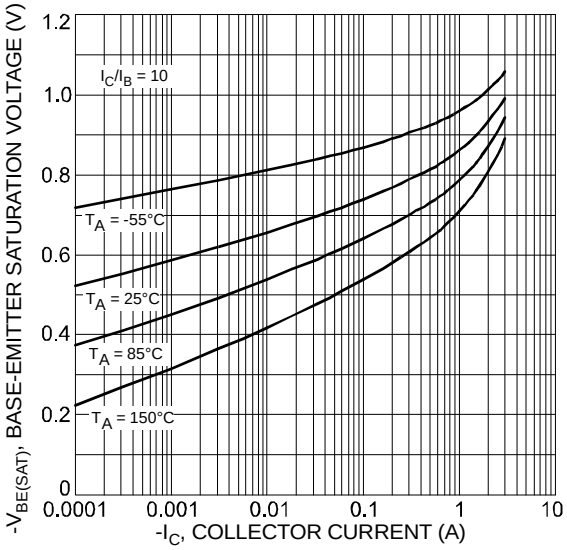


Fig. 6 Typical Base-Emitter Saturation Voltage vs. Collector Current

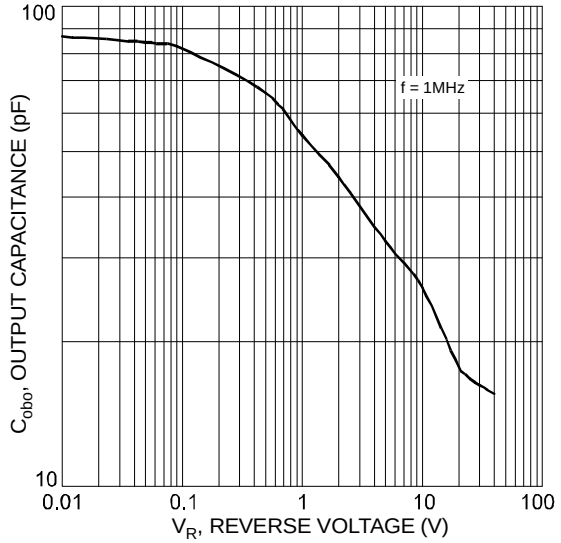


Fig. 7 Typical Output Capacitance Characteristics

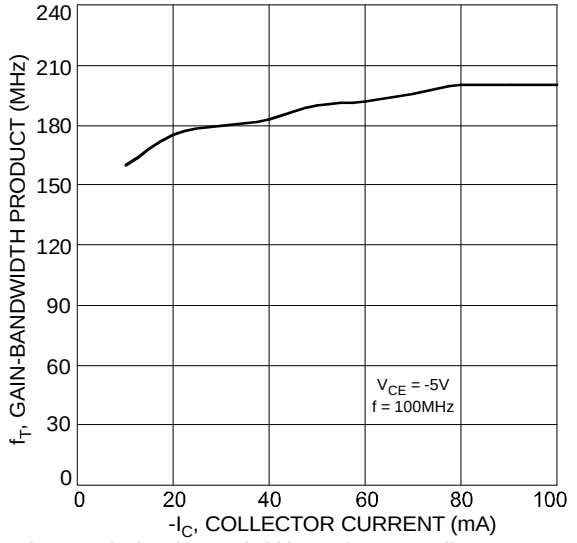


Fig. 8 Typical Gain-Bandwidth Product vs. Collector Current

Ordering Information (Note 5)

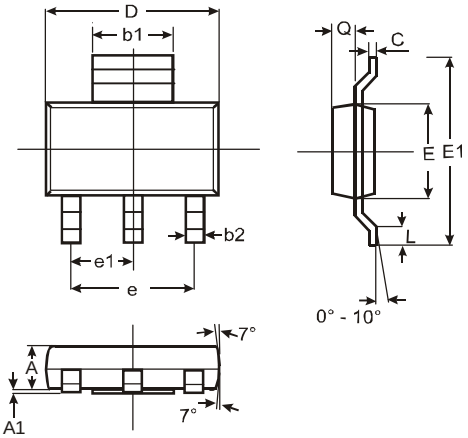
Part Number	Case	Packaging
DPLS350E-13	SOT-223	2500/Tape & Reel

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

Marking Information

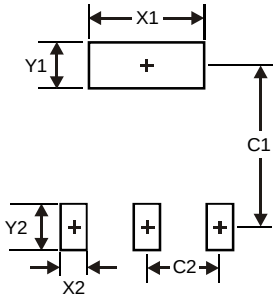
P35 = Product Type Marking Code
= Manufacturer's Code Marking
YWW = Date Code Marking
Y = Last digit of year (ex: 7 = 2007)
WW = Week code 01 - 52

Package Outline Dimensions



SOT-223			
Dim	**Min**	**Max**	**Typ**
A	1.55	1.65	1.60
A1	0.010	0.15	0.05
b1	2.90	3.10	3.00
b2	0.60	0.80	0.70
C	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
e	—	—	4.60
e1	—	—	2.30
L	0.85	1.05	0.95
Q	0.84	0.94	0.89
All Dimensions in mm			

Suggested Pad Layout



Dimensions	Value (in mm)
X1	3.3
X2	1.2
Y1	1.6
Y2	1.6
C1	6.4
C2	2.3

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2. support or sustain life and whose failure to perform when properly used in accordance with instructions for use provided in the labeling can be reasonably expected to result in significant injury to the user.

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