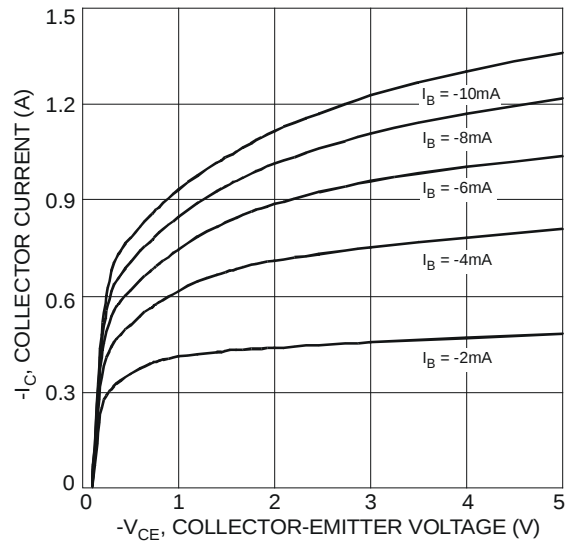
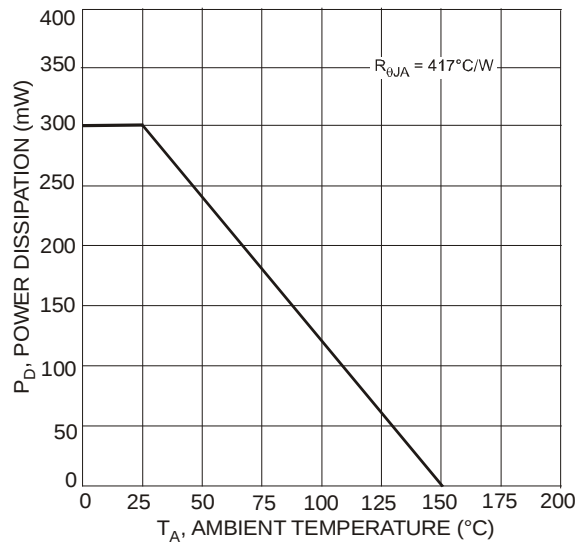


Electrical Characteristics @T_A = 25°C unless otherwise specified

Characteristic	Symbol	Min	Typ	Max	Unit	Test Condition
OFF CHARACTERISTICS (Note 4)						
Collector-Base Breakdown Voltage	V _{(BR)CBO}	-80	—	—	V	I _C = -100μA, I _E = 0
Collector-Emitter Breakdown Voltage	V _{(BR)CEO}	-60	—	—	V	I _C = -10mA, I _B = 0
Emitter-Base Breakdown Voltage	V _{(BR)EBO}	-5	—	—	V	I _E = -100μA, I _C = 0
Collector Cutoff Current	I _{CBO}	—	—	-100 -50	nA μA	V _{CB} = -60V, I _E = 0 V _{CB} = -60V, I _E = 0, T _A = 150°C
Collector Cutoff Current	I _{CES}	—	—	-100	nA	V _{CE} = -60V, V _{BE} = 0
Emitter Cutoff Current	I _{EBO}	—	—	-100	nA	V _{EB} = -5V, I _C = 0
ON CHARACTERISTICS (Note 4)						
DC Current Gain	h _{FE}	200 150 100	325 250 180	— — —	V	V _{CE} = -5V, I _C = -1mA V _{CE} = -5V, I _C = -500mA V _{CE} = -5V, I _C = -1A
Collector-Emitter Saturation Voltage	V _{CE(SAT)}	— — —	-90 -90 -160	-160 -175 -330	mV	I _C = -100mA, I _B = -1mA I _C = -500mA, I _B = -50mA I _C = -1A, I _B = -100mA
Collector-Emitter Saturation Resistance	R _{CE(SAT)}	—	160	330	mΩ	I _C = -1A, I _B = -100mA
Base-Emitter Saturation Voltage	V _{BE(SAT)}	—	-0.95	-1.1	V	I _C = -1A, I _B = -50mA
Base-Emitter Turn On Voltage	V _{BE(ON)}	—	-0.82	-0.9	V	V _{CE} = -5V, I _C = -1A
SMALL SIGNAL CHARACTERISTICS						
Output Capacitance	C _{obo}	—	10	15	pF	V _{CB} = -10V, f = 1.0MHz
Current Gain-Bandwidth Product	f _T	150	220	—	MHz	V _{CE} = -10V, I _C = -50mA, f = 100MHz

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



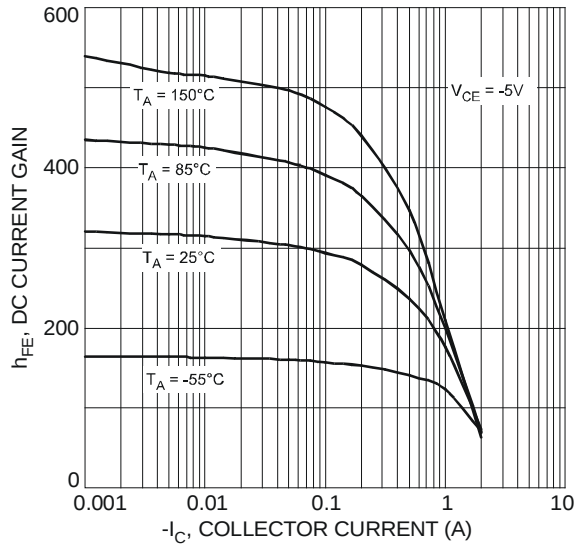


Fig. 3 Typical DC Current Gain vs. Collector Current

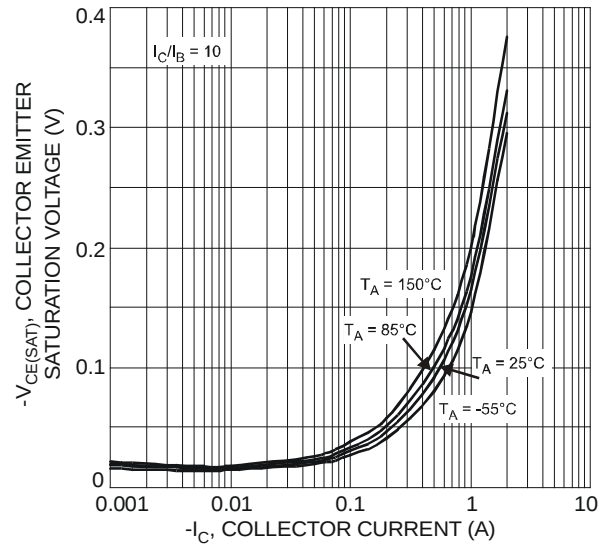


Fig. 4 Typical Collector Emitter Saturation Voltage vs. Collector Current

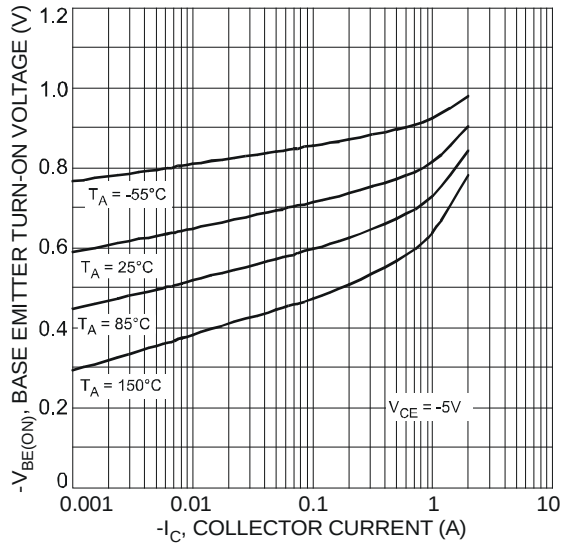


Fig. 5 Typical Base Emitter Turn-On Voltage vs. Collector Current

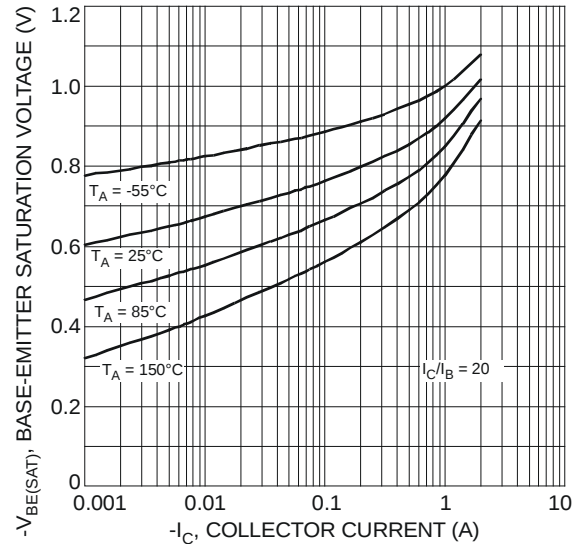


Fig. 6 Typical Base-Emitter Saturation Voltage vs. Collector Current

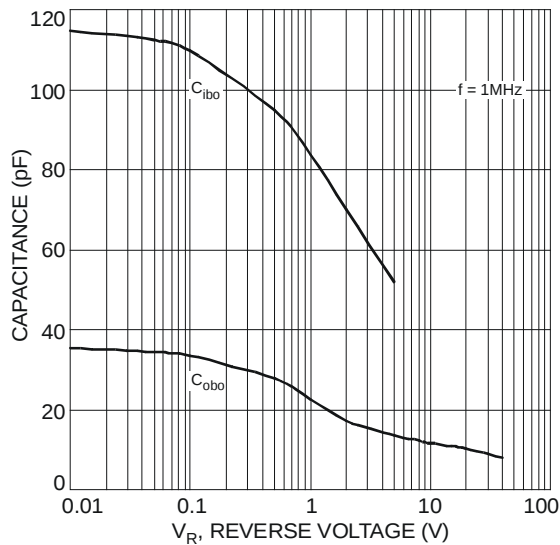


Fig. 7 Typical Total Capacitance

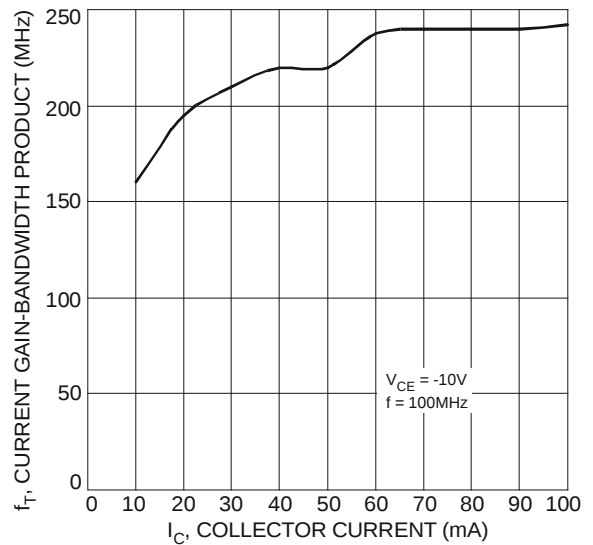


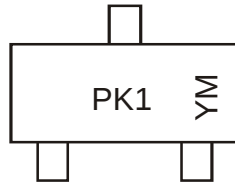
Fig. 8 Typical Gain-Bandwidth Product vs. Collector Current

Ordering Information (Note 5)

Device	Packaging	Shipping
DPLS160-7	SOT-23	3000/Tape & Reel

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

Marking Information



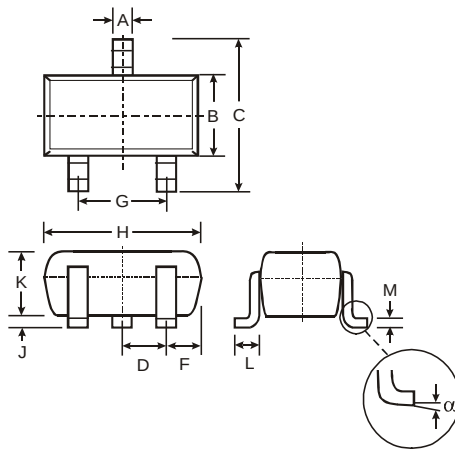
PK1 = Product Type Marking Code
YM = Date Code Marking
Y = Year ex: U = 2007
M = Month ex: 9 = September

Date Code Key

Year	2008	2009	2010	2011	2012	2013	2014	2015
Code	V	W	X	Y	Z	A	B	C

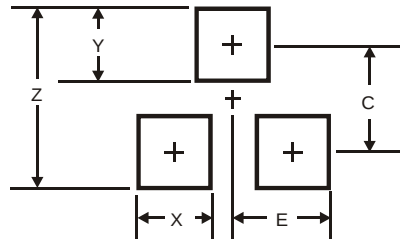
Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Code	1	2	3	4	5	6	7	8	9	O	N	D

Package Outline Dimensions



SOT-23		
Dim	Min	Max
A	0.37	0.51
B	1.20	1.40
C	2.30	2.50
D	0.89	1.03
F	0.45	0.60
G	1.78	2.05
H	2.80	3.00
J	0.013	0.10
K	0.903	1.10
L	0.45	0.61
M	0.085	0.180
α	0°	8°
All Dimensions in mm		

Suggested Pad Layout



Dimensions	Value (in mm)
Z	2.9
X	0.8
Y	0.9
C	2.0
E	1.35

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