Absolute Maximum Ratings (@T_A = +25°C, unless otherwise specified.)

Characteristic	Symbol	Value	Unit
Collector-Base Voltage	V_{CBO}	-160	V
Collector-Emitter Voltage	V_{CEO}	-150	V
Emitter-Base Voltage	V_{EBO}	-6	V
Continuous Collector Current	I_C	-200	mA

Thermal Characteristics (@T_A = +25°C, unless otherwise specified.)

Characteristic		Symbol	Value	Unit
Power Dissipation	(Note 5)	P_D	200	mW
	(Notes 6 & 7)		320	
Thermal Resistance, Junction to Ambient	(Note 5)	$R_{\theta JA}$	625	°C/W
	(Notes 6 & 7)		390	
Thermal Resistance, Junction to Case	(Note 8)	$R_{\theta JC}$	140	
Operating and Storage Temperature Range		T_J, T_{STG}	-55 to +150	°C

Electrical Characteristics (@T_A = +25°C, unless otherwise specified.)

Characteristic	Symbol	Min	Typ	Max	Unit	Test Condition
OFF CHARACTERISTICS						
Collector-Base Breakdown Voltage	BV_{CBO}	-160	—	—	V	I_C = -100μA, I_E = 0
Collector-Emitter Breakdown Voltage (Note 9)	BV_{CEO}	-150	—	—	V	I_C = -1mA, I_B = 0
Emitter-Base Breakdown Voltage	BV_{EBO}	-6	—	—	V	I_E = -100μA, I_C = 0
Collector-Base Cutoff Current	I_{CBO}	—	—	-50	nA	V_{CB} = -120V, I_E = 0
		—	—	-50	μA	V_{CB} = -120V, I_E = 0, T_A = +100°C
Base-Emitter Cutoff Current	I_{EBO}	—	—	-50	nA	V_{EB} = -5V, I_C = 0
ON CHARACTERISTICS (Note 9)						
DC Current Gain	h_{FE}	50	—	—	—	I_C = -1.0mA, V_{CE} = -5.0V
		60		240		I_C = -10mA, V_{CE} = -5.0V
		50		—		I_C = -50mA, V_{CE} = -5.0V
Collector-Emitter Saturation Voltage	$V_{CE(SAT)}$	—	—	-0.2	V	I_C = -10mA, I_B = -1.0mA
				-0.5		I_C = -50mA, I_B = -5.0mA
Base-Emitter Saturation Voltage	$V_{BE(SAT)}$	—	—	-1.0	V	I_C = -10mA, I_B = -1.0mA
						I_C = -50mA, I_B = -5.0mA
SMALL SIGNAL CHARACTERISTICS						
Output Capacitance	C_{obo}	—	—	6.0	pF	V_{CB} = -10V, f = 1.0MHz, I_E = 0
Small Signal Current Gain	h_{fe}	40	—	260	—	I_C = -1mA, V_{CE} = -10V, f = 1.0MHz
Current Gain-Bandwidth Product	f_T	100	—	300	MHz	I_C = -10mA, V_{CE} = -10V, f = 100MHz
Noise Figure	NF	—	—	8.0	dB	V_{CE} = -5.0V, I_C = -200μA, R_S = 10Ω, f = 1.0kHz

Notes:
5. For a device mounted on minimum recommended pad layout 1oz weight copper that is on a single-sided FR-4 PCB; device is measured under still air conditions whilst operating in a steady-state.
6. Same as Note 5, except the device is mounted 25mm X 25mm 2oz copper.
7. Maximum combined dissipation.
8. Thermal resistance from junction to the top of package.
9. Measured under pulsed conditions. Pulse width ≤ 300μs. Duty cycle ≤ 2%.

Typical Electrical Characteristics (@T_A = +25°C, unless otherwise specified.)

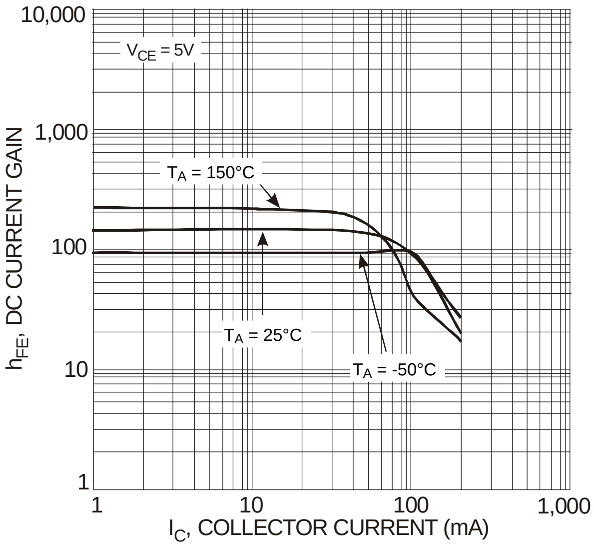

Fig. 1 Typical DC Current Gain vs. Collector Current

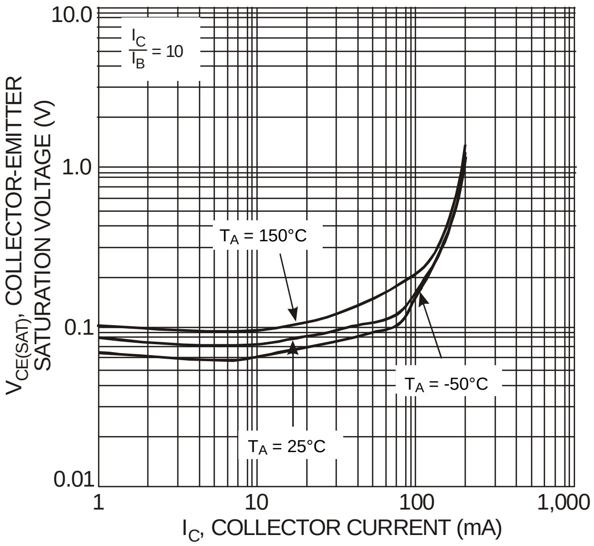

Fig. 2 Typical Collector-Emitter Saturation Voltage vs. Collector Current

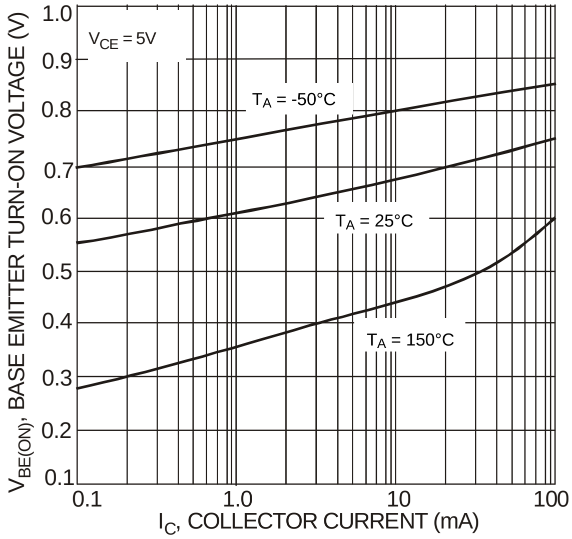

Fig. 3 Typical Base-Emitter Turn-On Voltage vs. Collector Current

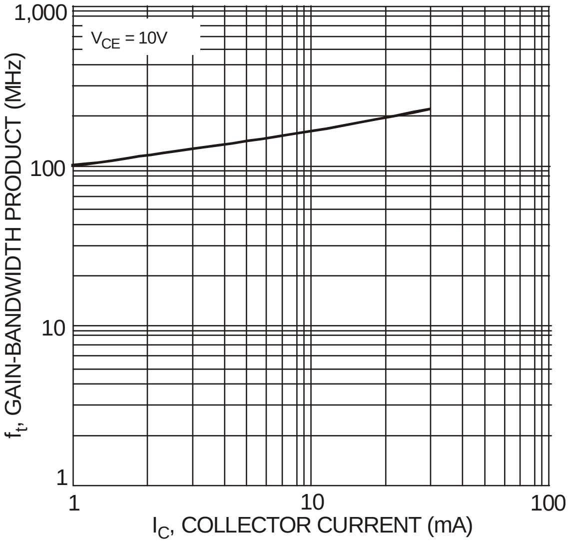

Fig. 4 Typical Gain-Bandwidth Product vs Collector Current

Package Outline Dimensions

Please see http://www.diodes.com/package-outlines.html for the latest version.

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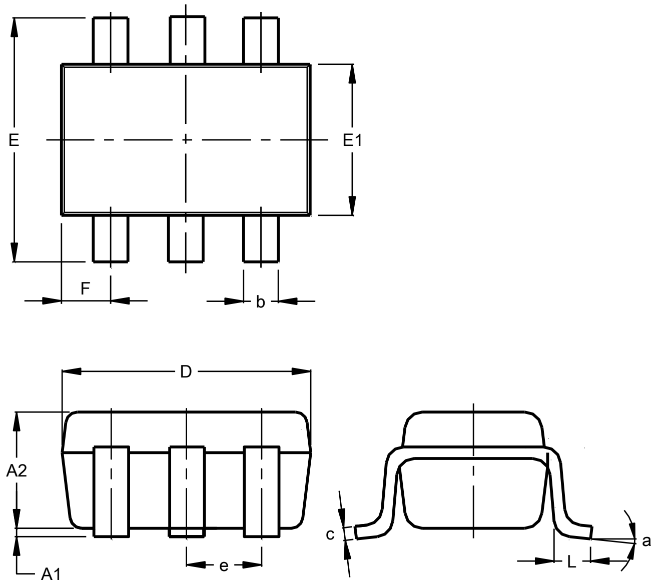

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Dim	**Min**	**Max**	**Typ**
A1	0.00	0.10	0.05
A2	0.90	1.00	0.95
b	0.10	0.30	0.25
c	0.10	0.22	0.11
D	1.80	2.20	2.15
E	2.00	2.20	2.10
E1	1.15	1.35	1.30
e	0.650 BSC		
F	0.40	0.45	0.425
L	0.25	0.40	0.30
a	0°	8°	--
All Dimensions in mm			

Suggested Pad Layout

Please see http://www.diodes.com/package-outlines.html for the latest version.

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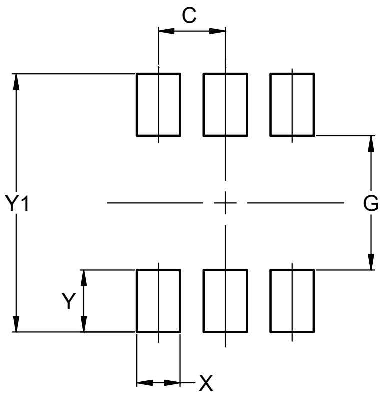

Dimensions	Value (in mm)
C	0.650
G	1.300
X	0.420
Y	0.600
Y1	2.500

Note: For high voltage applications, the appropriate industry sector guidelines should be considered with regards to creepage and clearance distances between device Terminals and PCB tracking.

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