

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

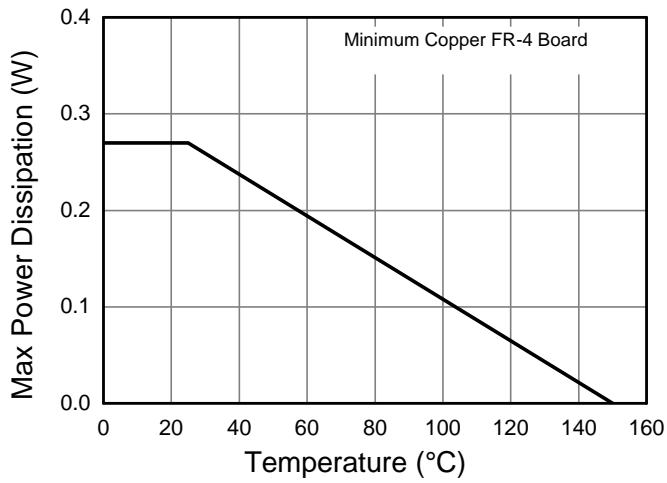
Characteristic	Symbol	Value	Unit
Supply Voltage <Pin: (4) to (3)>	V _{CC}	-50	V
Input Voltage <Pin: (5) to (4)>	V _{IN}	-12 to 5	V
Output Current	I _O	-100	mA
Output Current	I _C (Max)	-100	mA

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

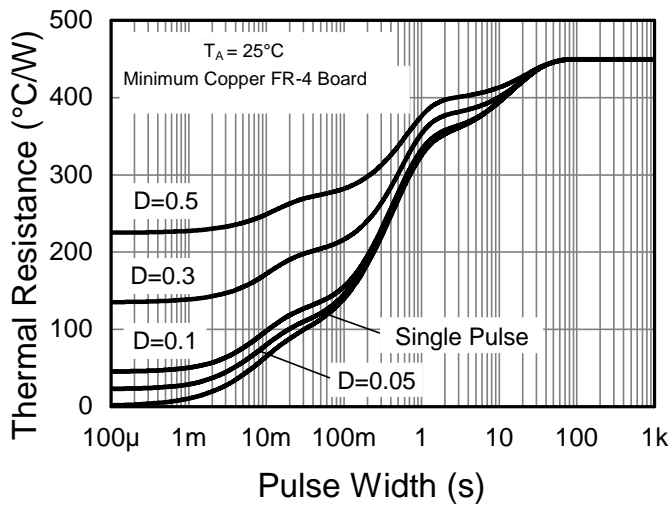
Characteristic	Symbol	Value	Unit
Power Dissipation (Notes 6 & 7)	P _D	270	mW
Thermal Resistance, Junction to Ambient Air (Note 6)	R _{θJA}	450	°C/W
Operating and Storage Temperature Range	T _J , T _{STG}	-55 to +150	°C

Notes: 6. Mounted on FR-4 PC Board with minimum recommended pad layout.
7. 150mW per element must not be exceeded.

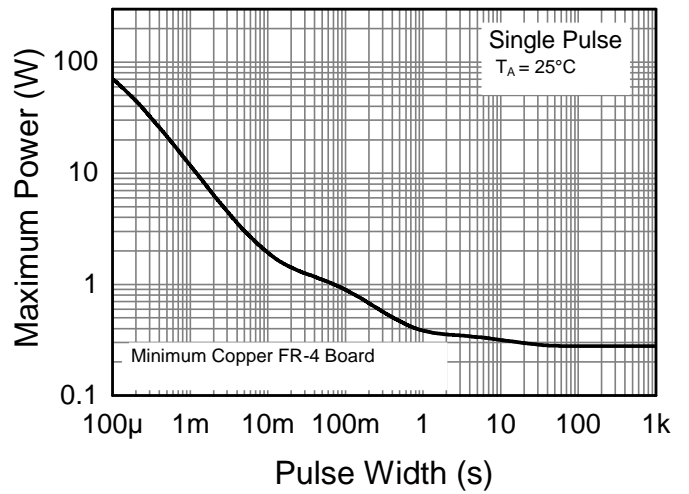
Thermal Characteristics and Derating Information



Derating Curve



Transient Thermal Impedance



Pulse Power Dissipation

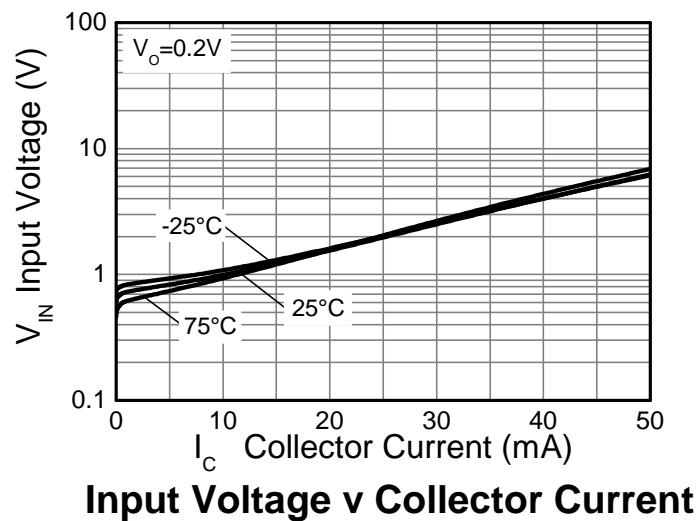
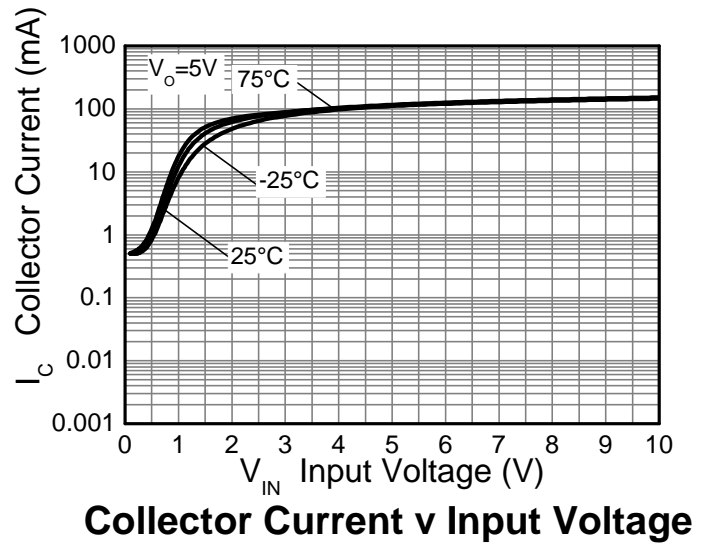
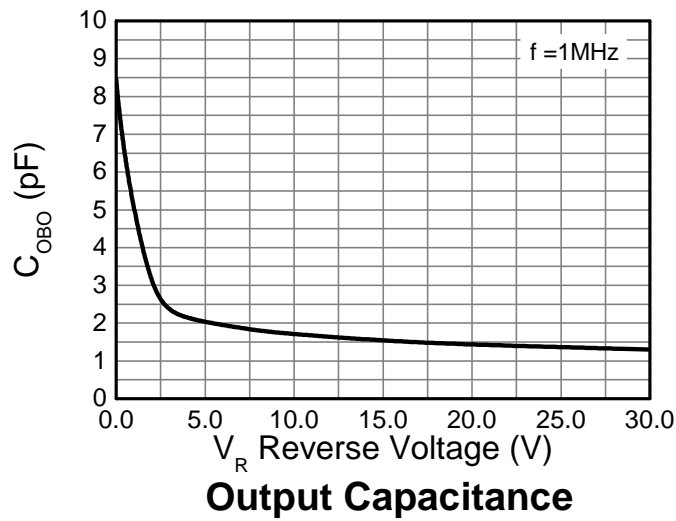
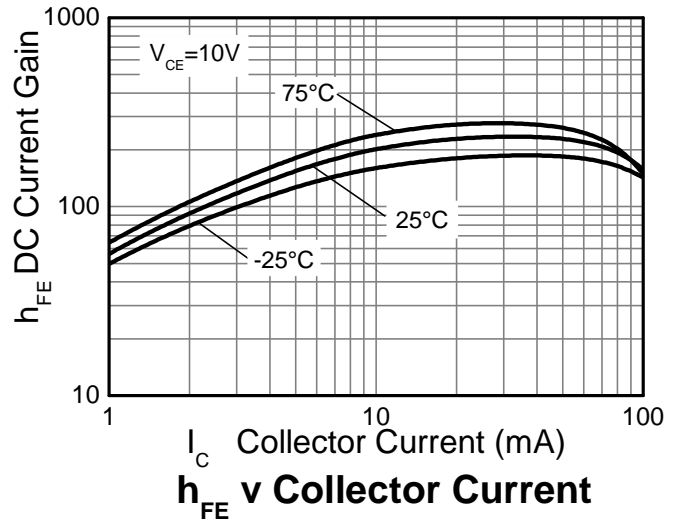
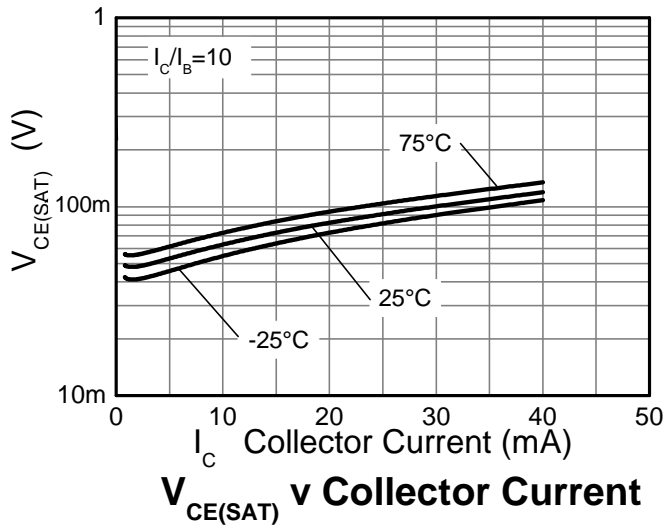
Electrical Characteristics (@ $T_A = +25^\circ\text{C}$, unless otherwise specified.)

Characteristic	Symbol	Min	Typ	Max	Unit	Test Condition
Input Voltage	$V_{I(\text{OFF})}$ (Note 8)	-0.5	—	—	V	$V_{CC} = -5\text{V}$, $I_O = -100\mu\text{A}$
	$V_{I(\text{ON})}$ (Note 9)	—	—	-1.1		$V_O = -0.3\text{V}$, $I_O = -5\text{mA}$
Output Voltage	$V_{O(\text{ON})}$	—	-0.1	-0.3	V	$I_O/I_I = -5\text{mA} / -0.25\text{mA}$
Input Current	I_I	—	—	-3.6	mA	$V_I = -5\text{V}$
Output Current	$I_{O(\text{OFF})}$	—	—	-0.5	μA	$V_{CC} = -50\text{V}$, $V_I = 0\text{V}$
DC Current Gain	G_I	80	—	—	—	$V_O = -5\text{V}$, $I_O = -10\text{mA}$
Input Resistor (R_1) Tolerance	ΔR_1	-30	—	+30	%	—
Resistance Ratio Tolerance	$\Delta R_2/R_1$	-20	—	+20	%	—
Gain-Bandwidth Product (Note 10)	f_T	—	250	—	MHz	$V_{CE} = -10\text{V}$, $I_E = -5\text{mA}$, $f = 100\text{MHz}$

Notes:

- 8. Guarantees that the device will be switched OFF if the Input Voltage is less than -0.5V.
- 9. Guarantees that the device will be switched ON if the Input Voltage is more than -1.1V.
- 10. Transistor - For Reference Only.

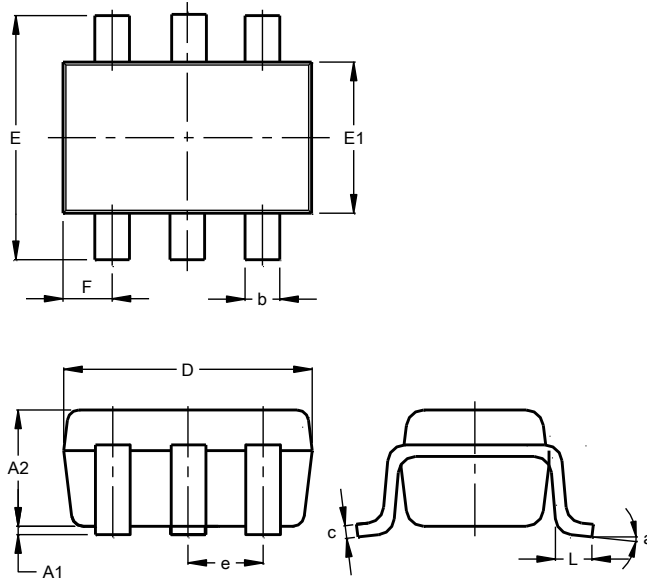
Typical Electrical Characteristics (@ $T_A = +25^\circ\text{C}$, unless otherwise specified.)



Package Outline Dimensions

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

SOT363

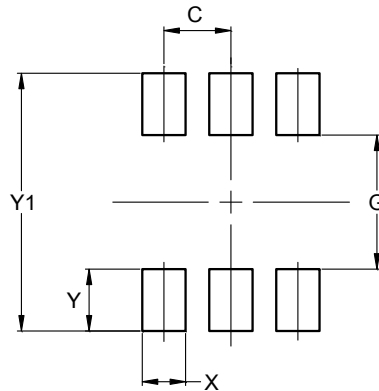


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Dim	Min	Max	Typ
A1	0.00	0.10	0.05
A2	0.90	1.00	0.95
b	0.10	0.30	0.25
c	0.10	0.22	0.11
D	1.80	2.20	2.15
E	2.00	2.20	2.10
E1	1.15	1.35	1.30
e	0.650 BSC		
F	0.40	0.45	0.425
L	0.25	0.40	0.30
a	0°	8°	--
All Dimensions in mm			

Suggested Pad Layout

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

SOT363



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

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