

Maximum Ratings @T_A = 25°C unless otherwise specified

Characteristic		Symbol	Value	Unit
Supply Voltage <Pin: (3) to (2)>		V _{CC}	50	V
Input Voltage <Pin: (1) to (2)>	DDTA123ECA	V _{IN}	+10 to -12	V
	DDTA143ECA		+10 to -30	
	DDTA114ECA		+10 to -40	
	DDTA124ECA		+10 to -40	
	DDTA144ECA		+10 to -40	
	DDTA115ECA		+10 to -40	
Output Current	DDTA123ECA	I _O	-100	mA
	DDTA143ECA		-100	
	DDTA114ECA		-50	
	DDTA124ECA		-30	
	DDTA144ECA		-30	
	DDTA115ECA		-20	
Output Current		I _C (Max)	-100	mA

Thermal Characteristics @T_A = 25°C unless otherwise specified

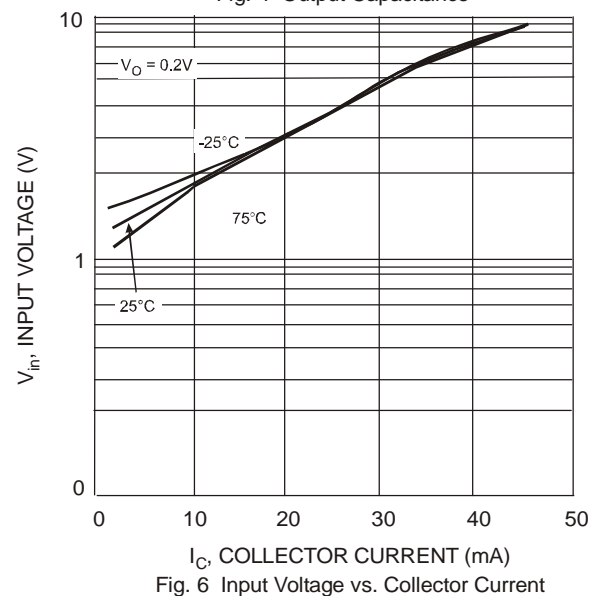
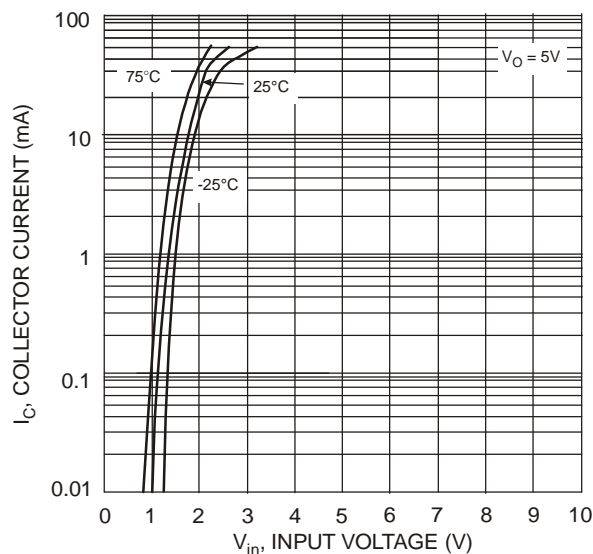
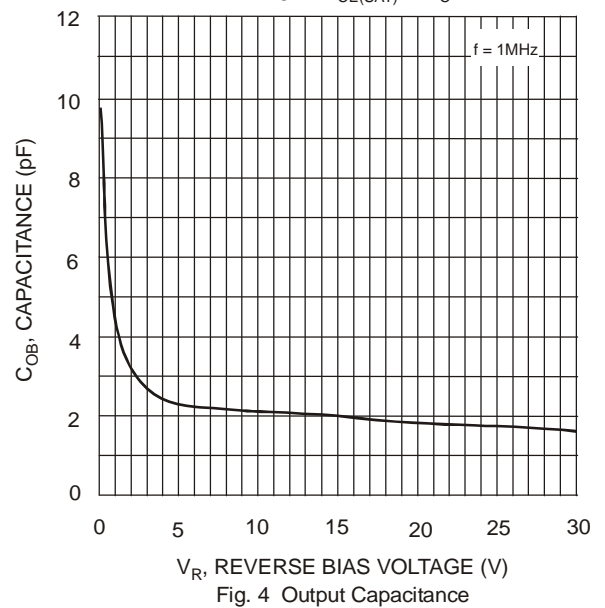
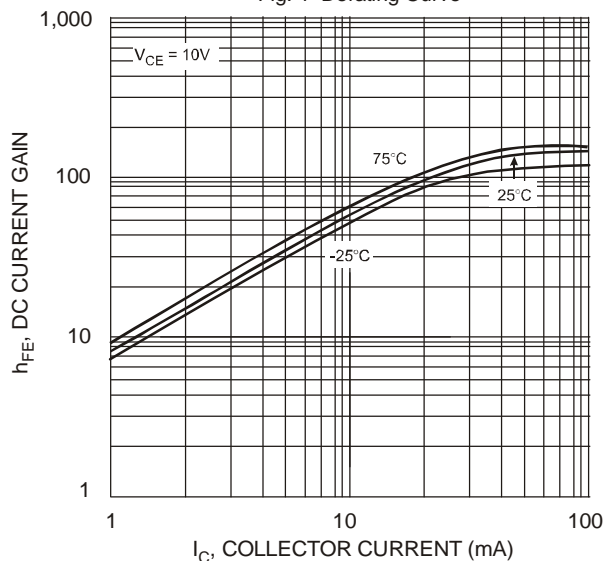
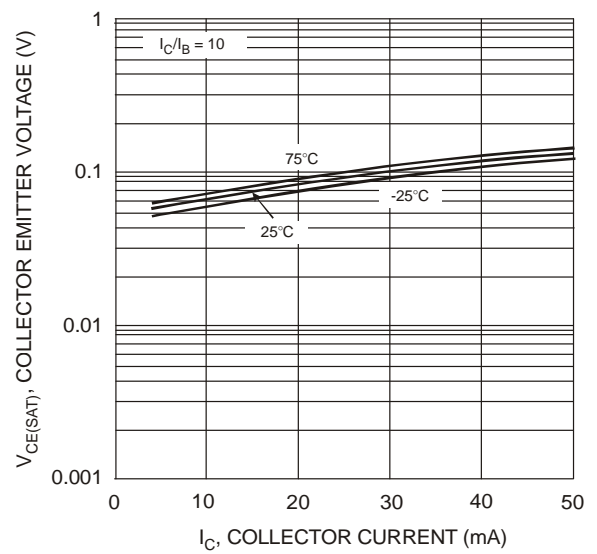
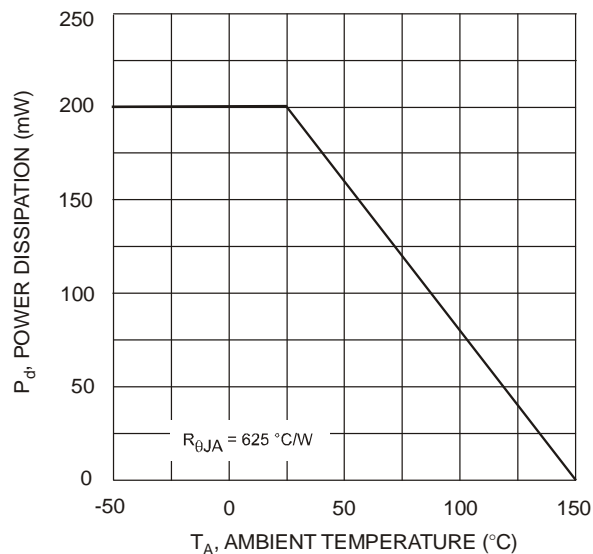
Characteristic	Symbol	Value	Unit
Power Dissipation (Note 5 & 6)	P _D	200	mW
Thermal Resistance, Junction to Ambient Air (Note 5)	R _{θJA}	625	°C/W
Operating and Storage Temperature Range	T _J , T _{STG}	-55 to +150	°C

Notes: 5. Mounted on FR4 PC Board with minimum recommended pad layout
6. 150mW per element must not be exceeded.

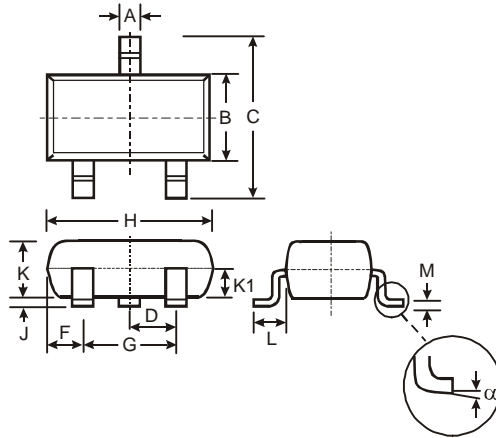
Electrical Characteristics @T_A = 25°C unless otherwise specified

Characteristic		Symbol	Min	Typ	Max	Unit	Test Condition
Input Voltage		V _{I(off)}	-0.5	-1.1	—	V	V _{CC} = -5V, I _O = -100μA
		V _{I(on)}	—	-1.9	-3		V _O = -0.3V, I _O = -20mA, DDTA123ECA V _O = -0.3V, I _O = -20mA, DDTA143ECA V _O = -0.3V, I _O = -10mA, DDTA114ECA V _O = -0.3V, I _O = -5mA, DDTA124ECA V _O = -0.3V, I _O = -2mA, DDTA144ECA V _O = -0.3V, I _O = -1mA, DDTA115ECA
Output Voltage		V _{O(on)}	—	-0.1	-0.3	V	I _O /I _I = -10mA/-0.5mA DDTA123ECA I _O /I _I = -10mA/-0.5mA DDTA143ECA I _O /I _I = -10mA/-0.5mA DDTA114ECA I _O /I _I = -10mA/-0.5mA DDTA124ECA I _O /I _I = -10mA/-0.5mA DDTA144ECA I _O /I _I = -5mA/-0.25mA DDTA115ECA
Input Current	DDTA123ECA DDTA143ECA DDTA114ECA DDTA124ECA DDTA144ECA DDTA115ECA	I _I	—	—	-3.8 -1.8 -0.88 -0.36 -0.18 -0.15	mA	V _I = -5V
Output Current		I _{O(off)}	—	—	-0.5	μA	V _{CC} = -50V, V _I = 0V
DC Current Gain	DDTA123ECA DDTA143ECA DDTA114ECA DDTA124ECA DDTA144ECA DDTA115ECA	G _I	20 20 30 56 68 82	—	—	—	V _O = -5V, I _O = -20mA V _O = -5V, I _O = -10mA V _O = -5V, I _O = -5mA V _O = -5V, I _O = -5mA V _O = -5V, I _O = -5mA V _O = -5V, I _O = -5mA
Input Resistor Tolerance		ΔR ₁	-30	—	+30	%	—
Resistance Ratio Tolerance		ΔR ₂ /R ₁	0.8	1	1.2	%	—
Gain-Bandwidth Product		f _T	—	250	—	MHz	V _{CE} = -10V, I _E = -5mA, f = 100MHz

Typical Characteristics – DDTA143ECA

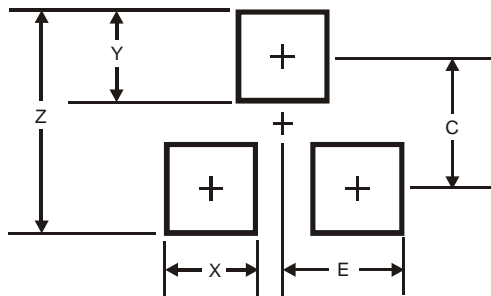


Package Outline Dimensions



SOT23			
Dim	Min	Max	Typ
A	0.37	0.51	0.40
B	1.20	1.40	1.30
C	2.30	2.50	2.40
D	0.89	1.03	0.915
F	0.45	0.60	0.535
G	1.78	2.05	1.83
H	2.80	3.00	2.90
J	0.013	0.10	0.05
K	0.903	1.10	1.00
K1	-	-	0.400
L	0.45	0.61	0.55
M	0.085	0.18	0.11
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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