

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

Characteristic		Symbol	Value	Unit
Supply Voltage, (2) to (3)		Vcc	-50	V
Input Voltage, (1) to (2)	DDTA113ZE DDTA123YE DDTA123JE DDTA143XE DDTA143FE DDTA114YE DDTA114WE DDTA1124XE DDTA144VE DDTA144WE	V _{IN}	+5 to -10 +5 to -12 +5 to -12 +7 to -20 +6 to -30 +5 to -30 +6 to -40 +10 to -30 +10 to -40 +15 to -40 +10 to -40	V
Output Current	DDTA113ZE DDTA123YE DDTA123JE DDTA143XE DDTA143FE DDTA114YE DDTA114WE DDTA114WE DDTA124XE DDTA144VE DDTA144WE	lo	-100 -100 -100 -100 -100 -100 -70 -100 -50 -30 -30	mA
Output Current	All	I _{C(MAX)}	-100	mA

Thermal Characteristics

Characteristic	Symbol	Value	Unit
Power Dissipation (Note 5)	P_{D}	150	mW
Thermal Resistance, Junction to Ambient Air (Note 5)	$R_{ hetaJA}$	833	°C/W
Operating and Storage Temperature Range	T _J , T _{STG}	-55 to +150	°C

Note: 5. Mounted on FR4 PC Board with minimum recommended pad layout.



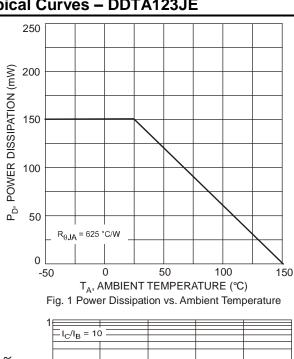
Electrical Characteristics (@T_A = 25°C unless otherwise specified)

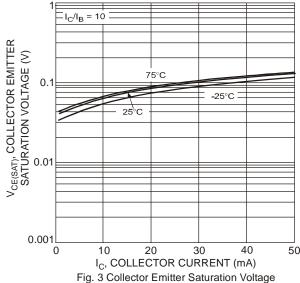
DDTA113ZE DDTA123YE O.5 O.3 O.3 DDTA123YE O.5 DDTA123YE O.5 O.5 DDTA143XE O.5 O.3 DDTA143FE O.5 O.3 DDTA143FE O.5 O.3 O.3 DDTA143YE O.5 O.3 O.3 DDTA144YE O.5	Chara	ecteristic	Symbol	Min	Тур	Max	Unit	Test Condition
DDTA114YE		DDTA123YE DDTA123JE DDTA143XE DDTA143FE		-0.3 -0.5 -0.3 -0.3		_	V	
DDTA123YE DDTA123YE DDTA123YE DDTA143XE DDTA143XE DDTA143E DDTA143XE DDTA143E DDTA143E DDTA143E DDTA143E DDTA143E DDTA143E DDTA143E DDTA144YE DDTA114WE DDTA114WE DDTA144WE DDTA		DDTA114WE DDTA124XE DDTA144VE	.(611)	-0.8 -0.4 -1.0				
Output Voltage	Input Voltage	DDTA123YE DDTA123JE DDTA143XE DDTA143FE DDTA143ZE DDTA114YE DDTA114WE DDTA124XE DDTA144VE	V _{I(ON)}	_	_	-3.0 -1.1 -2.5 -1.3 -1.3 -1.4 -3.0 -2.5 -5.0		$\begin{array}{l} V_O = -0.3V, \ I_O = -20 mA \\ V_O = -0.3V, \ I_O = -5 mA \\ V_O = -0.3V, \ I_O = -20 mA \\ V_O = -0.3V, \ I_O = -3 mA \\ V_O = -0.3V, \ I_O = -5 mA \\ V_O = -0.3V, \ I_O = -1 mA \\ V_O = -0.3V, \ I_O = -2 mA \\ V_O = -0.3V, \ I_O = -2 mA \\ V_O = -0.3V, \ I_O = -2 mA \\ V_O = -0.3V, \ I_O = -2 mA \\ V_O = -0.3V, \ I_O = -2 mA \\ V_O = -0.3V, \ I_O = -2 mA \\ V_O = -0.3V, \ I_O = -2 mA \\ V_O = -0.3V, \ I_O = -2 mA \\ V_O = -0.3V, \ I_O = -2 mA \\ V_O = -0.3V, \ I_O = -2 mA \\ \end{array}$
	Output Voltage		V _{O(ON)}		-0.1		V	$I_O/I_I = -5$ mA/-0.25mA DDTA143E $I_O/I_I = -5$ mA/-0.25mA DDTA114E
DDTA123YE		DDTA123JE DDTA143XE DDTA143FE DDTA143ZE DDTA114YE DDTA114WE DDTA124XE DDTA144VE	-		_	-3.6 -1.8 -1.8 -1.8 -0.88 -0.88 -0.36 -0.16		
Output Current $I_{O(OFF)}$ — -0.5 μ A V_{CC} = -50V, V_{I} = 0V	Output Current		I _{O(OFF)}	_	_	-0.5	μA	$V_{CC} = -50V, V_{I} = 0V$
DDTA113ZE	DC Current Gain	DDTA123YE DDTA123JE DDTA143XE DDTA143FE DDTA143ZE DDTA114YE DDTA114WE DDTA124XE DDTA144VE		33 80 30 68 80 68 24 68 33	_	_	_	
	DDTA144WE Input Resistor Tolerance		A D			T3U	0/.	
Input Resistor Tolerance ΔR_1 -30—+30%—Resistance Ratio Tolerance $\Delta R_2/R_1$ -20—+20%—	_ '		·					
Gain-Bandwidth Product (Note 6) f_T — 250 — MHz $V_{CE} = -10V$, $I_E = 5mA$, $f = 100MHz$								V _{CE} = -10V, I _E = 5mA, f = 100MHz

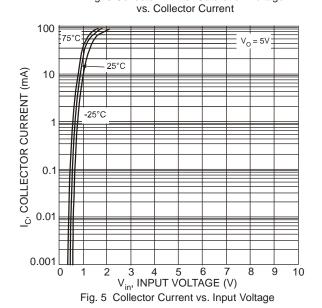
Note: 6. Transistor – For Reference Only

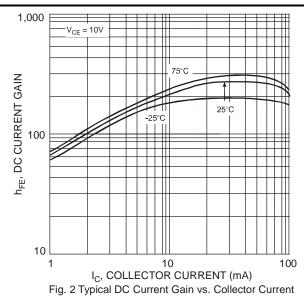


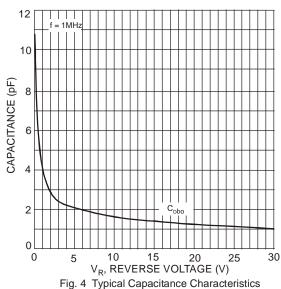
Typical Curves - DDTA123JE

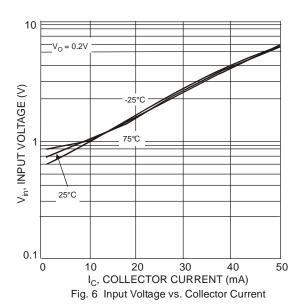










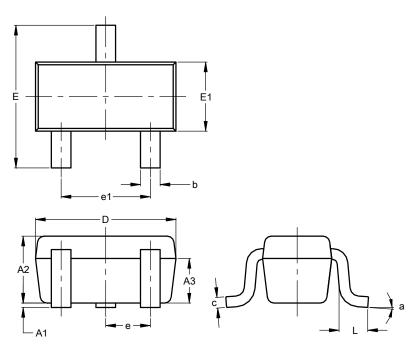




Package Outline Dimensions

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

SOT523

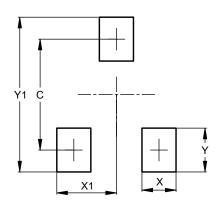


SOT523					
Dim	Min	Max	Тур		
A1	0.00	0.10	0.05		
A2	0.60	0.80	0.75		
A3	0.45	0.65	0.50		
b	0.15	0.30	0.22		
С	0.10	0.20	0.12		
D	1.50	1.70	1.60		
Е	1.45	1.75	1.60		
E1	0.75	0.85	0.80		
е	0.50 BSC				
e1	0.90	1.10	1.00		
L	0.20	0.40	0.33		
а	0°		8°		
All Dimensions in mm					

Suggested Pad Layout

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

SOT523



Dimensions	Value
С	1.29
Х	0.40
X1	0.70
Y	0.51
Y1	1.80



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