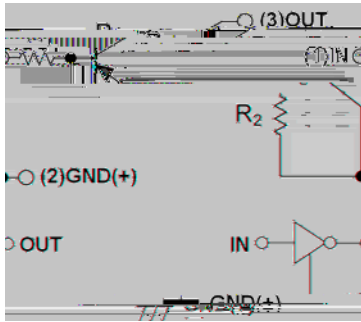


# DTA124XE

Surface mount package ideally suited for automatic Insert



## Application

Signal amplification  
Switching circuit

## Mechanical data

Package

Device marking code				35
Supply voltage	$V_{CC}$	V		-50
Input voltage	$V_{IN}$	V		-40 to +10
Output current	$I_o$	mA		-100
Power dissipation	$P_D$	mW		150
Operation junction temperature	$T_J$			-55 to +150
Storage temperature	$T_{STG}$			-55 to +150



# DTA124XE

## Electrical Characteristics (T<sub>a</sub>=25 Unless otherwise specified)

Item	Symbol	Unit	Conditions	Min	Typ	Max
Input voltage	V <sub>I(off)</sub>	V	V <sub>CC</sub> =-5V, I <sub>o</sub> =-100uA	-0.4		
Collector-emitter breakdown voltage	V <sub>I(on)</sub>	V	V <sub>o</sub> =-0.3V, I <sub>o</sub> =-2mA			-2.5
Output voltage	V <sub>O(on)</sub>	V	I <sub>o</sub> / I <sub>i</sub> = -10mA / -0.5 mA			-0.3
Input current	I <sub>I</sub>	mA	V <sub>I</sub> =-5V			-0.36
Output current	I <sub>O(off)</sub>	uA	V <sub>CC</sub> =-50V, V <sub>i</sub> =0			-0.5
DC current gain	G <sub>I</sub>		V <sub>o</sub> =-5V, I <sub>o</sub> =-5mA	68		
Input resistance	R <sub>1</sub>	k		15.4	22	28.6
Resistance ratio	R <sub>2</sub> /R <sub>1</sub>			1.7	2.1	2.6
Transition frequency	f <sub>T</sub>	MHz	V <sub>o</sub> =-10V, I <sub>o</sub> =-5mA, f=100MHz		250	

## Thermal Characteristics

Parameter	Symbol	Unit	Value
Thermal resistance, junction-to-ambient	R <sub>J-A</sub> <sup>(1)</sup>	/W	833
Thermal resistance, junction-to-case	R <sub>J-C</sub> <sup>(1)</sup>	/W	666

Note:

1 Thermal resistance from junction to ambient and from junction to case mounted on P.C.B. with 25.4mm\*25.4mm copper pad areas

## Ordering Information

Preferred P/N	Packing code	Unit weight(g)	Minimum package(pcs)	Inner box quantity(pcs)	Outer carton quantity(pcs)	Delivery mode
DTA124XE	F2	Approximate 0.0027	3000	30000	120000	7" reel



## Characteristics

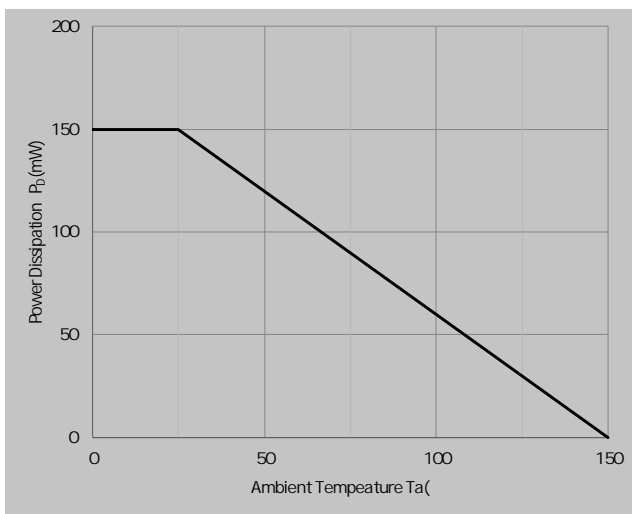
Fig 1 ON Characteristics

Fig 2 OFF Characteristics

Fig 3  $V_{O(ON)} - I_o$

Fig 4  $G_i - I_o$

Fig 5  $P_D - T_a$  Curve



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# DTA124XE

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## Disclaimer