

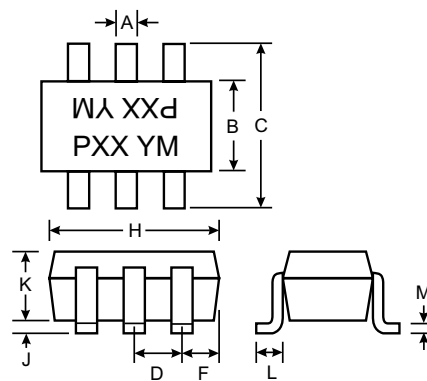
Features

- Epitaxial Planar Die Construction
- Complementary NPN Types Available (DDC)
- Built-In Biasing Resistors

Mechanical Data

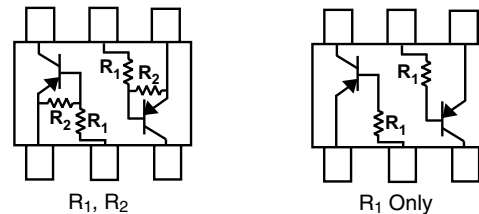
- Case: SOT-363, Molded Plastic
- Case material - UL Flammability Rating 94V-0
- Terminals: Solderable per MIL-STD-202, Method 208
- Terminal Connections: See Diagram
- Weight: 0.006 grams (approx.)

UNDER DEVELOPMENT



SOT-363		
Dim	Min	Max
A	0.10	0.30
B	1.15	1.35
C	2.00	2.20
D	0.65 Nominal	
E	0.30	0.40
G	1.80	2.20
H	1.80	2.20
J	—	0.10
K	0.90	1.00
L	0.25	0.40
M	0.10	0.25
All Dimensions in mm		

P/N	R1	R2	MARKING
DDA124EU	22K	22K	P17
DDA144EU	47K	47K	P20
DDA114YU	10K	47K	P14
DDA123JU	2.2K	47K	P06
DDA114EU	10K	10K	P13
DDA143TU	4.7K	-	P07
DDA114TU	10K	-	P12



SCHEMATIC DIAGRAM

Maximum Ratings @ T_A = 25°C unless otherwise specified

Characteristic	Symbol	Value	Unit
Supply Voltage, (3) to (1)	V _{CC}	50	V
Input Voltage, (2) to (1)	V _{IN}	+10 to -40 +10 to -40 +6 to -40 +5 to -12 +10 to -40 +5 V _{max} +5 V _{max}	V
Output Current	I _O	-30 -30 -70 -100 -50 -100 -100	mA
Output Current	I _C (Max)	-100	mA
Power Dissipation	P _d	-200	mW
Operating and Storage and Temperature Range	T _j , T _{STG}	-55 to +150	°C

Electrical Characteristics @ T_A = 25°C unless otherwise specified

Characteristic (DDA143TU & DDA114TU only)	Symbol	Min	Typ	Max	Unit	Test Condition
Collector-Base Breakdown Voltage	BV _{CBO}	-50	—	—	V	I _C = -50μA
Collector-Emitter Breakdown Voltage	BV _{CEO}	-50	—	—	V	I _C = -1mA
Emitter-Base Breakdown Voltage	BV _{EBO}	-5	—	—	V	I _E = -50μA
Collector Cutoff Current	I _{CBO}	—	—	-0.5	μA	V _{CB} = -50V
Emitter Cutoff Current	I _{EBO}	—	—	-0.5	μA	V _{EB} = -4V
Collector-Emitter Saturation Voltage	V _{CE(sat)}	—	—	-0.3	V	I _C /I _B = -2.5mA / -0.25mA I _C /I _B = -1mA / -0.1mA DDA143TU DDA114TU
DC Current Transfer Ratio	h _{FE}	100	250	600	—	I _C = -1mA, V _{CE} = -5V
Gain-Bandwidth Product*	f _T	—	250	—	MHz	V _{CE} = -10V, I _E = 5mA, f = 100MHz

Characteristic		Symbol	Min	Typ	Max	Unit	Test Condition
Input Voltage	DDA124EU DDA144EU DDA114YU DDA123JU DDA114EU	V _{I(off)}	-0.5 -0.5 -0.3 -0.5 -0.5	-1.1 -1.1 — — -1.1	—	V	V _{CC} = -5V, I _O = -100μA
	DDA124EU DDA144EU DDA114YU DDA123JU DDA114EU	V _{I(on)}	—	— — — -1.9	-1.9 -3.0 -1.4 -1.1 -3.0		
Output Voltage	DDA124EU DDA144EU DDA114YU DDA123JU DDA114EU	V _{O(on)}	—	-0.1	-0.3	V	I _O /I _I = -10mA / -0.5mA I _O /I _I = -10mA / -0.5mA I _O /I _I = -5mA / -0.25mA I _O /I _I = -5mA / -0.25mA I _O /I _I = -10mA / -0.5mA
Input Current	DDA124EU DDA144EU DDA114YU DDA123JU DDA114EU	I _I	—	—	-0.36 -0.18 -0.88 -3.6 -0.88	mA	V _I = -5V
Output Current		I _{O(off)}	—	—	-0.5	μA	V _{CC} = -50V, V _I = -0V
DC Current Gain	DDA124EU DDA144EU DDA114YU DDA123JU DDA114EU	G _I	56 68 68 80 30	—	—	—	V _O = -5V, I _O = -5mA V _O = -5V, I _O = -5mA V _O = -5V, I _O = -10mA V _O = -5V, I _O = -10mA V _O = -5V, I _O = -5mA
Gain-Bandwidth Product*		f _T	—	250	—	MHz	V _{CE} = -10V, I _E = -5mA, f = 100MHz

* Transistor - For Reference Only

UNDER DEVELOPMENT