DDTA (R1 = R2 SERIES) UA

PNP PRE-BIASED SMALL SIGNAL SOT-323 SURFACE MOUNT TRANSISTOR

NEW PRODUCT

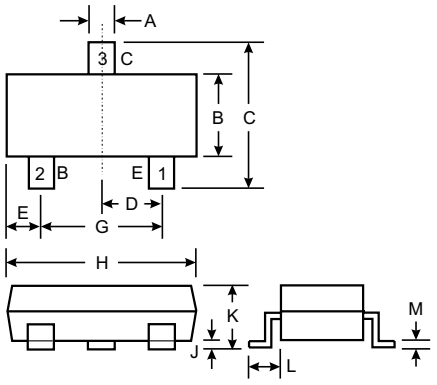
UNDER DEVELOPMENT

Features

- Epitaxial Planar Die Construction
- Complementary NPN Types Available (DDTC)
- Built-In Biasing Resistors, R1 = R2

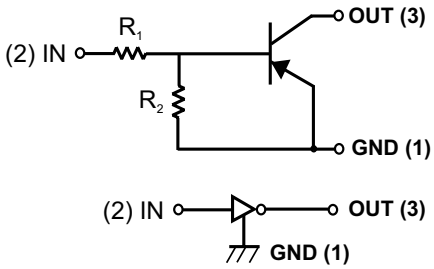
Mechanical Data

- Case: SOT-323, 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.)



SOT-323		
Dim	**Min**	**Max**
A	0.37	0.51
B	1.19	1.40
C	2.10	2.50
D	0.89	1.05
E	0.45	0.61
G	1.78	2.05
H	2.65	3.05
J	0.013	0.15
K	0.89	1.10
L	0.45	0.61
M	0.076	0.178
All Dimensions in mm		

P/N	R1, R2 (NOM)	MARKING
DDTA123EUA	2.2K	P04
DDTA143EUA	4.7K	P08
DDTA114EUA	10K	P13
DDTA124EUA	22K	P17
DDTA144EUA	47K	P20
DDTA115EUA	100K	P24



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)	DDTA123EUA DDTA143EUA DDTA114EUA DDTA124EUA DDTA144EUA DDTA115EUA	V_{IN}	+10 to -12 +10 to -30 +10 to -40 +10 to -40 +10 to -40 +10 to -40	V
Output Current		I_O	50	mA
Output Current	DDTA123EUA DDTA143EUA DDTA114EUA DDTA124EUA DDTA144EUA DDTA115EUA	I_O	-100 -100 -50 -30 -30 -20	mA
Output Current	All	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

NEW PRODUCT

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, DDTA123EUA V_O = 0.3V, I_O = 20mA, DDTA143EUA V_O = 0.3V, I_O = 10mA, DDTA114EUA V_O = 0.3V, I_O = 5mA, DDTA124EUA V_O = 0.3V, I_O = 2mA, DDTA144EUA V_O = 0.3V, I_O = 1mA, DDTA115EUA
Output Voltage		$V_{O(on)}$	—	-0.1	-0.3	V	I_O/I_I =10mA/0.5mA, DDTA123EUA I_O/I_I =10mA/0.5mA, DDTA143EUA I_O/I_I =10mA/0.5mA, DDTA114EUA I_O/I_I =10mA/0.5mA, DDTA124EUA I_O/I_I =10mA/0.5mA, DDTA144EUA I_O/I_I =5mA/0.25mA, DDTA115EUA
Input Current	DDTA123EUA DDTA143EUA DDTA114EUA DDTA124EUA DDTA144EUA DDTA115EUA	I_I	—	—	-3.8 -1.8 -.88 -.36 -.18 -.15	mA	V_I = -5V
Output Current		$I_{O(off)}$	—	—	0.5	μA	V_{CC} = -50V, V_I = 0V
DC Current Gain	DDTA123EUA DDTA143EUA DDTA114EUA DDTA124EUA DDTA144EUA DDTA115EUA	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
Resistance Ratio		R_2/R_1	0.8	1	1.2	—	—
Gain-Bandwidth Product*		f_T	—	250	—	MHz	V_{CE} = -10V, I_E = 5mA, f = 100MHz

* Transistor - For Reference Only