

Dual NPN Small Signal Surface Mount Transistor

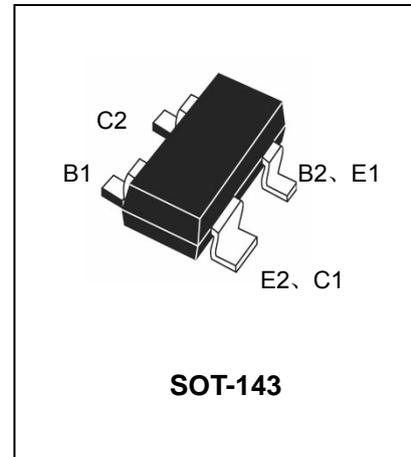
T22

FEATURES

- A surper-minimold package houses 2 transistor.
- Excellent temperture response between these 2 transistor.
- High pairing property in h_{FE} .



Lead-free



APPLICATIONS

- Dual NPN small signal surface mount transistor

ORDERING INFORMATION

Type No.	Marking	Package Code
T22	T22	SOT-143

MAXIMUM RATING @ Ta=25°C unless otherwise specified

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage TR1	10	V
	TR2	40	
V_{CEO}	Collector-Emitter Voltage TR2	25	V
V_{EBO}	Emitter-Base Voltage TR1	5	V
I_C	Collector Current -Continuous	500	mA
P_D	Power Dissipation	300	mW
T_j, T_{stg}	Junction and Storage Temperature	-55 to +150	°C



Dual NPN Small Signal Surface Mount Transistor

T22

ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

CHARACTERISTICS of TR1(NPN Transistor)

Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=10\mu A$ $I_E=0$	10	-	V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=100\mu A$ $I_C=0$	5	-	V
Emitter cut-off current	I_{EBO}	$V_{EB}=5V$ $I_C=0$	-	0.1	μA
DC current gain	h_{FE}	$V_{CE}=1V$ $I_C=50mA$	120	350	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=500mA$ $I_B=50mA$	-	0.6	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C=500mA$ $I_B=50mA$	-	1.2	V
Transition frequency	f_T	$V_{CE}=6V$ $I_C=20mA$ $f=30MHz$	150	-	MHz

CHARACTERISTICS of TR2(NPN Transistor)

Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=100\mu A$ $I_E=0$	40	-	V
Collector-base breakdown voltage	$V_{(BR)CEO}$	$I_C=1mA$ $I_B=0$	25	-	V
Collector cut-off current	I_{CBO}	$V_{CB}=40V$, $I_E=0$	-	0.1	μA
Collector cut-off current	I_{EBO}	$V_{EB}=5V$ $I_B=0$	-	0.1	μA
DC current gain	h_{FE}	$V_{CE}=1V$ $I_C=50mA$	120	350	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=500mA$ $I_B=50mA$	-	0.6	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C=500mA$ $I_B=50mA$	-	1.2	V
Transition frequency	f_T	$V_{CE}=6V$ $I_C=20mA$ $f=30MHz$	150	-	MHz

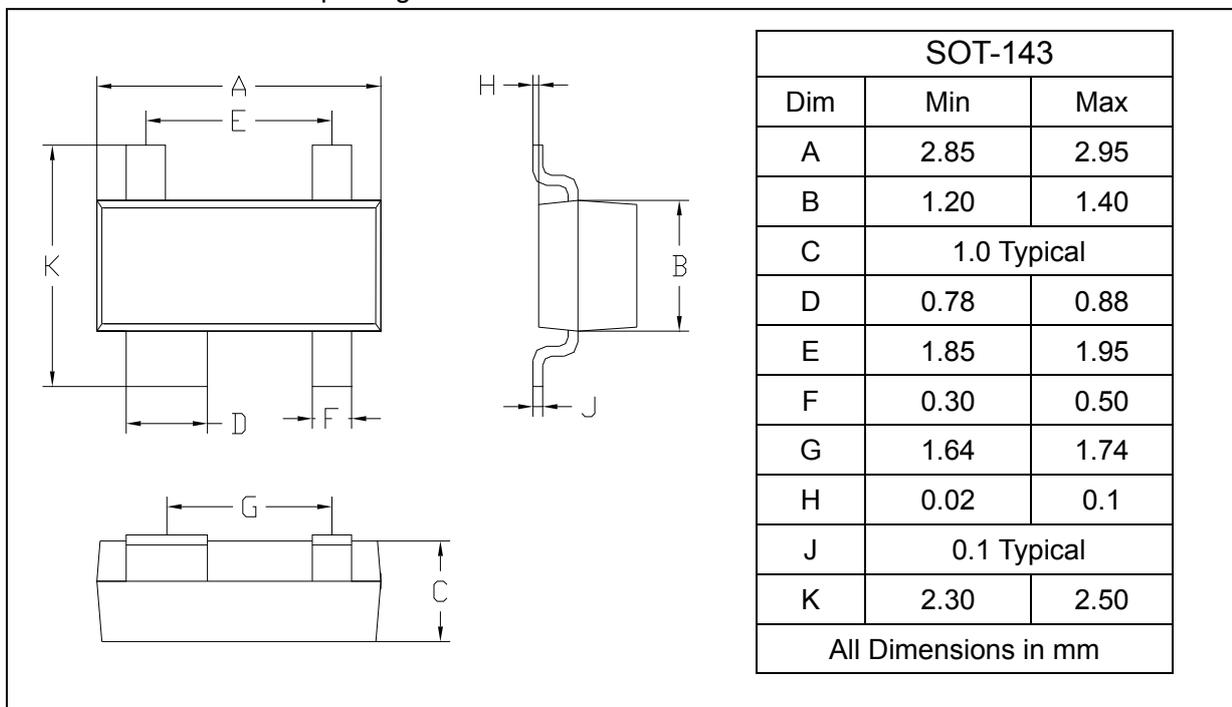
Dual NPN Small Signal Surface Mount Transistor

T22

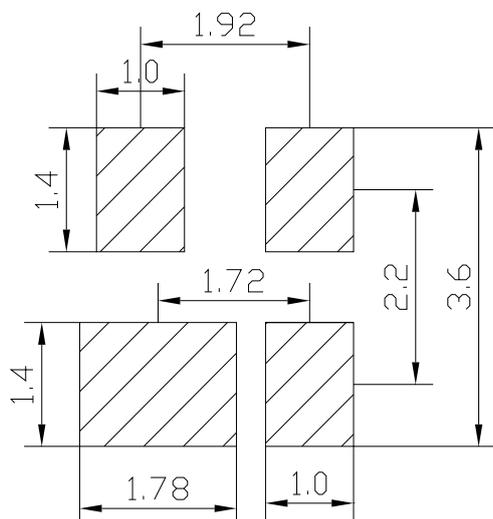
PACKAGE OUTLINE

Plastic surface mounted package

SOT-143



SOLDERING FOOTPRINT



Unit : mm

PACKAGE INFORMATION

Device	Package	Shipping
T22	SOT-143	3000/package