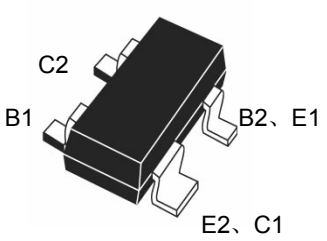
Dual NPN Small Signal Surface Mount Transistor T11

FEATURES

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

Lead-free



SOT-143

APPLICATIONS

- Dual NPN small signal surface mount transistor

ORDERING INFORMATION

Type No.	Marking	Package Code
T11	T11	SOT-143

MAXIMUM RATING @ Ta=25℃ unless otherwise specified

Symbol	**Parameter**		**Value**	**Unit**
V_{CBO}	Collector-Base Voltage	TR1 TR2	10 50	V
V_{CEO}	Collector-Emitter Voltage	TR2	45	V
V_{EBO}	Emitter-Base Voltage	TR1	5	V
I_C	Collector Current -Continuous		100	mA
P_D	Power Dissipation		200	mW
T_j, T_{stg}	Junction and Storage Temperature		-55 to+150	℃

Dual NPN Small Signal Surface Mount Transistor T11

ELECTRICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

CHARACTERISTICS of TR1(NPN Transistor)

Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=10μA I_E=0	10	-	V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=100μA 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}=5V I_C=1mA	200	400	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=100mA I_B=5mA	-	0.3	V
Base-emitter saturation voltage	$V_{BE(sat)}$	I_C=100mA I_B=5mA	-	1	V
Transition frequency	f_T	V_{CE}=5V I_C=10mA f=30MHz	150	-	MHz
Output Capacitance	C_{ob}	V_{CB}=10V,f=1MHz,I_E=0	-	3.5	pF

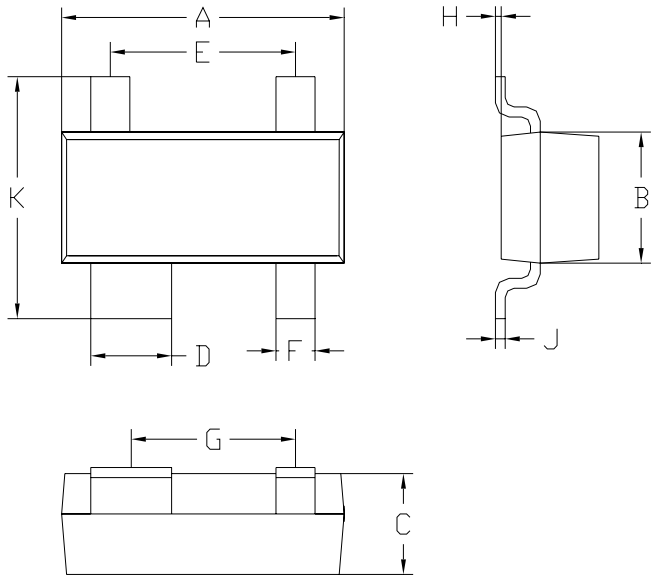
CHARACTERISTICS of TR2(NPN Transistor)

Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=100μA I_E=0	50	-	V
Collector-base breakdown voltage	$V_{(BR)CEO}$	I_C=100μA I_B=0	45	-	V
Collector cut-off current	I_{CBO}	V_{CB}=50V,I_E=0	-	0.1	μA
Collector cut-off current	I_{CEO}	V_{CE}=35V I_B=0	-	0.1	μA
DC current gain	h_{FE}	V_{CE}=5V I_C=1mA	200	400	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=100mA I_B=5mA	-	0.3	V
Base-emitter saturation voltage	$V_{BE(sat)}$	I_C=100mA I_B=5mA	-	1	V
Transition frequency	f_T	V_{CE}=5V I_C=10mA f=30MHz	150	-	MHz
Output Capacitance	C_{ob}	V_{CB}=10V,f=1MHz,I_E=0	-	3.5	pF

Dual NPN Small Signal Surface Mount Transistor T11

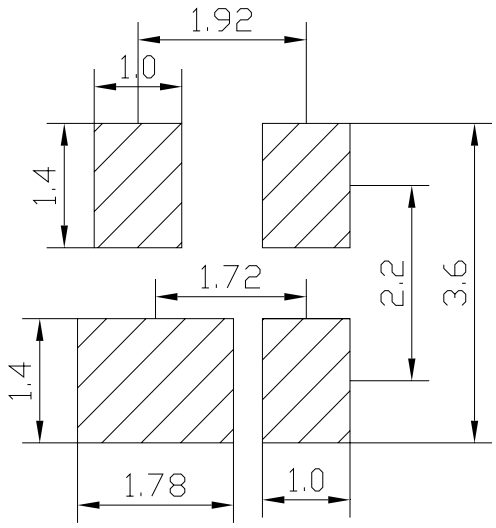
PACKAGE OUTLINE

Plastic surface mounted package SOT-143



SOT-143		
Dim	Min	Max
A	2.85	2.95
B	1.20	1.40
C	1.0 Typical	
D	0.78	0.88
E	1.85	1.95
F	0.30	0.50
G	1.64	1.74
H	0.02	0.1
J	0.1 Typical	
K	2.30	2.50
All Dimensions in mm		

SOLDERING FOOTPRINT



Unit ： mm

PACKAGE INFORMATION

Device	Package	Shipping
T11	SOT-143	2000/package