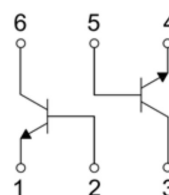
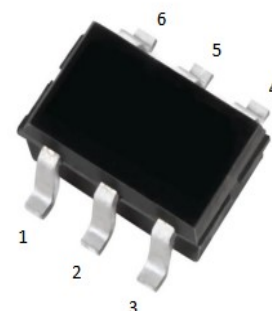




1. Features

- DUAL TRANSISTOR (NPN+NPN)
- Two 2SC2412K chips in a SOT-363 package
- Mounting possible with SOT-363 automatic mounting machines
- Transistor elements are independent, eliminating interference
- Mounting cost and area can be cut in half

SOT-363



2. Mechanical Data

- Case:Molded Plastic,SOT-363 .
- Epoxy:UL 94V-0 rate flame retardant.
- Terminals:Plated Leads Solderable per MIL-STD-750,Method-2026.
- Marking:..X1
- Mounting Position : Any.

3. Maximum Ratings

Electrical Characteristics Rating at 25°C ambient temperature unless otherwise specified.

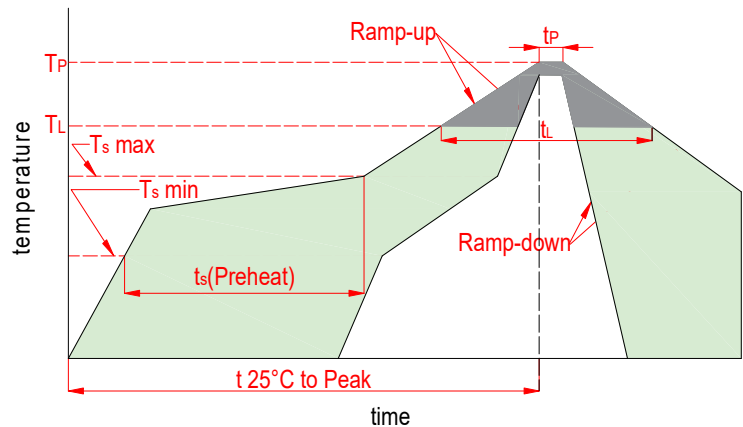
Characteristic	Symbol	Value	Unit
Collector-Base Voltage	V_{CBO}	60	V
Collector-Emitter Voltage	V_{CEO}	50	V
Emitter-Base Voltage	V_{EBO}	7	V
Collector Current	I_C	150	mA
Collector Power Dissipation	P_C	150	mW
Junction Temperature	T_j	-55~+150	°C
Storage Temperature	T_{stg}	-55~+150	°C

4. Electrical Characteristics($T_A=25^\circ\text{C}$ unless otherwise noted)

Characteristics	Symbol	Condition	Min	TYP	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=50\mu\text{A}, I_E=0$	60	-	-	V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=1\text{mA}, I_B=0$	50	-	-	V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=50\mu\text{A}, I_C=0$	7	-	-	V
Collector cut-off current	I_{CBO}	$V_{CB}=60\text{V}, I_E=0$	-	-	0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=7\text{V}, I_C=0$	-	-	0.1	μA
DC current gain	h_{FE}	$V_{CE}=6\text{V}, I_C=1\text{mA}$	120	-	560	-
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=50\text{mA}, I_B=5\text{mA}$	-	-	0.4	V
Collector output capacitance	C_{ob}	$V_{CB}=12\text{V}, I_E=0, f=1\text{MHz}$	-	2	3.5	pF
Transition frequency	f_T	$V_{CE}=12\text{V}, I_C=2\text{mA}, f=100\text{MHz}$	-	180	-	MHz

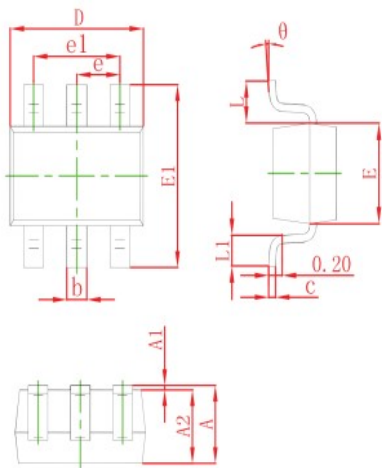


5. Soldering Parameters



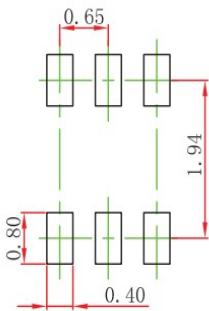
Reflow Condition		Lead-free
Pre Heat	Temp. min(T_s (min))	150℃
	Temp. max(T_s (min))	200℃
	Time(min to max)(t_s)	60~120s
Aver. ramp up rate(Liquidus Temp.)(T_L)to peak		3℃/s max
T_s (max) to T_L -Ramp-up Rate		3℃/s max
Reflow	Temp.(T_L)(Liquidus)	217℃
	Temp.(t_L)(Liquidus)	60~150s
Peak Temp.(T_P)		260 ^{+0/-5} ℃
Time within actual peak Temp.(t_p)		30s max
Ramp-down Rate		6℃/s max
Time 25℃ to peak Tempe.(T_p)		8 minutes max
Do not exceed		260℃

6. Dimensions

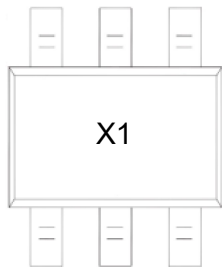


Dimensions	Inches		Millimeters	
	Min	Max	Min	Max
A	0.035	0.043	0.900	1.100
A1	0.000	0.004	0.000	0.100
A2	0.035	0.039	0.900	1.000
b	0.006	0.014	0.150	0.350
c	0.003	0.006	0.080	0.150
D	0.079	0.087	2.000	2.200
E	0.045	0.053	1.150	1.350
E1	0.085	0.096	2.150	2.450
e	0.047	0.055	1.200	1.400
L1	0.010	0.018	0.260	0.460

Mounting PAD Layout



7. Part Marking System



8. Package Information

Package	Part Number	Tape Width(mm)	Quantity(pcs)
SOT-363	UMX1N	8	3000



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