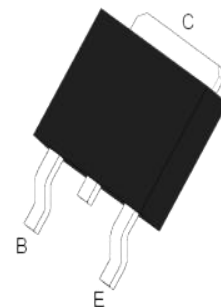




1.Features

- medium power low voltage transistor

Case:TO-252



2.Mechanical Data

- Case:Molded Plastic,TO-252
- Epoxy:UL 94V-0 rate flame retardant
- Terminals:Plated Leads Solderable per MIL-STD-750,Method-2026.
- Marking: marked on body.
- Mounting Position : Any.

3.Maximum Ratings and Electrical Characteristics

Rating at 25°C Ambient temperature unless otherwise specified

Parameters	Symbol	Value	Unit
Collector-Base Voltage	V_{CBO}	-400	V
Collector-Emitter Voltage	V_{CEO}	-400	V
Emitter-Base Voltage	V_{EBO}	-7	V
Collector Current -Continuous	I_C	0.5	A
Power Dissipation $T_A=25^{\circ}\text{C}$	P_C	1	W
Junction Temperature	T_j	150	$^{\circ}\text{C}$
Operating and Storage Temperature Range	T_{stg}	-55 to +150	$^{\circ}\text{C}$

4.Electrical Characteristics (TA=25°C unless otherwise noted)

Parameters	Symbol	Cindition	Min	TYP	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = -50\mu\text{A}, I_E = 0$	-400	-	-	V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = -1\text{mA}, I_B = 0$	-400	-	-	V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = -50\mu\text{A}, I_C = 0$	-7	-	-	V
Collector cut-off current	I_{CEO}	$V_{CB} = -400\text{V}, I_B = 0$	-	-	-10	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = -6\text{V}, I_B = 0$	-	-	-10	μA
DC current gain	h_{FE}	$V_{CE} = 5\text{V}, I_C = 50\text{mA}$	82	140	270	-
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -100\text{A}, I_B = 10\text{A}$	-	-	-1	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C = -100\text{A}, I_B = -10\text{A}$	-	-	-1.2	V
Transition frequency	f_T	$V_{CE} = -5\text{V}, I_B = 50\text{A}$	-	12	-	MHz
Output capacitance	C_{ob}	$V_{CE} = -10\text{V}, I_E = 0, f = 1\text{MHZ}$	-	18	-	pF
Turn-ON Time	t_{on}	$L_C = -100\text{mA}, R_L = 1.5\text{k}\Omega$	-	0.6	-	μS
Turn-OFF Time	t_{off}	$I_{B1} = I_{B2} = 10\text{mA}, V_{cc} \text{ to } -150\text{V}$	-	1	-	μS



5. Rating And Characteristic Curves

Fig.1 $V_{CESAT}-I_C$

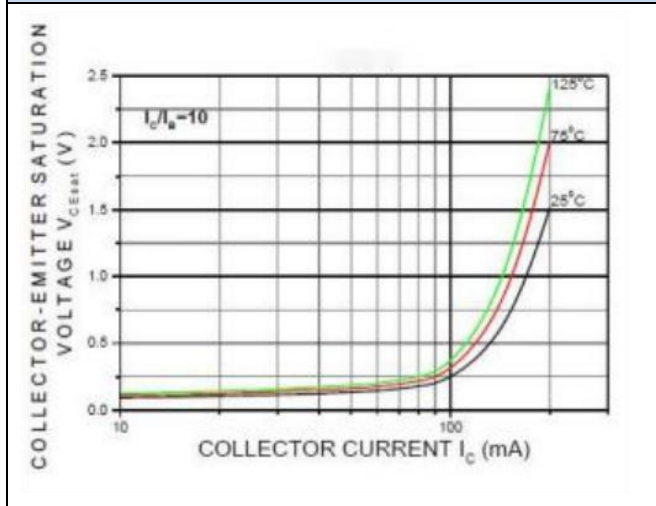
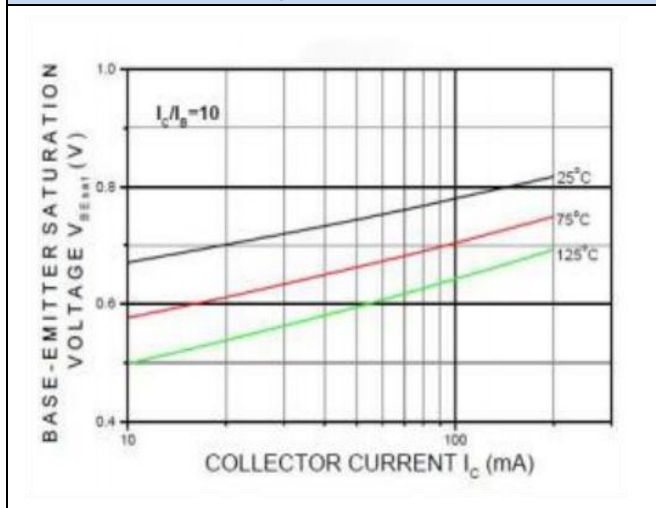


Fig.2 $h_{FE}-I_C$

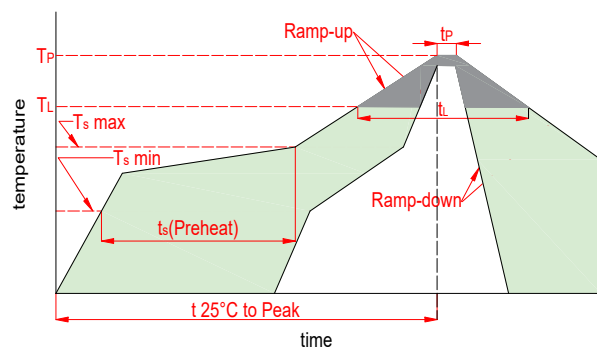


Fig.3 $V_{BESAT}-I_C$



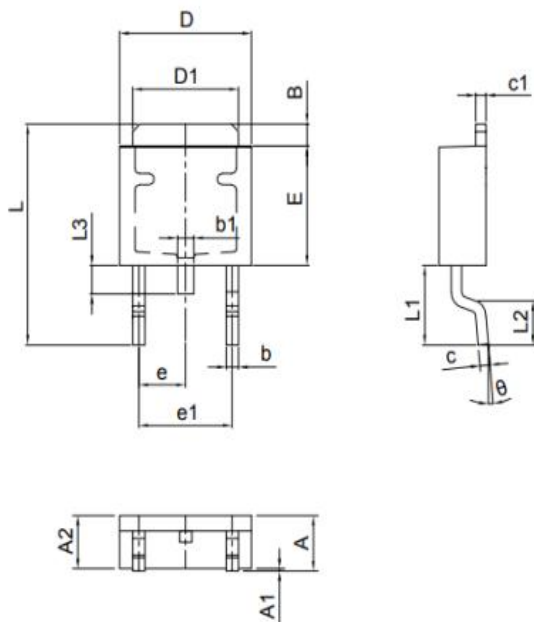


6. Soldering Parameters



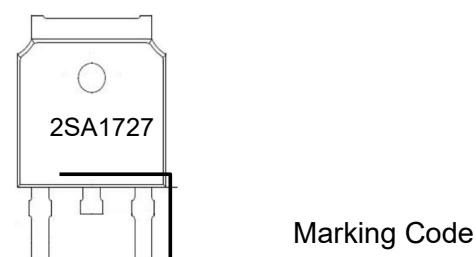
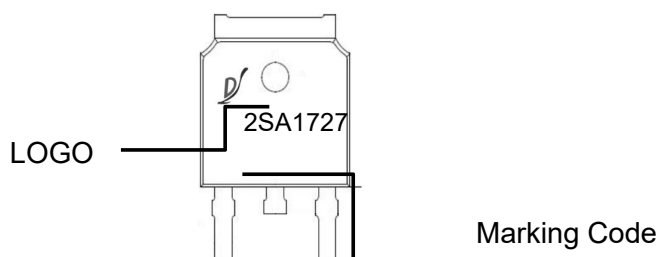
Reflow Condition		Lead-free
Pre Heat	Temp. min(T_s (min))	150°C
	Temp. max(T_s (min))	200°C
	Time(min to max)(t_s)	60~180s
Aver. ramp up rate(Liquidus Temp.)(T_L)to peak		3°C/s max
T_s (max) to T_L -Ramp-up Rate		3°C/s max
Reflow	Temp.(T_L)(Liquidus)	217°C
	Temp.(t_L)(Liquidus)	60~150s
Peak Temp.(T_P)		260 ^{+0/-5} °C
Time within actual peak Temp.(t_p)		30s max
Ramp-down Rate		6°C/s max
Time 25°C to peak Tempe.(T_p)		8 minutes max
Do not exceed		260°C

7.Dimensions



Dimensions	Inches		Millimeters	
	Min	Max	Min	Max
A	0.091	0.098	2.30	2.50
A1	0.000	0.006	0.00	0.15
A2	0.089	0.094	2.25	2.40
B	0.047	0.063	1.20	1.60
b	0.020	0.028	0.50	0.70
b1	0.028	0.035	0.70	0.90
c	0.016	0.024	0.40	0.60
c1	0.016	0.024	0.40	0.60
D	0.244	0.256	6.20	6.50
D1	0.205	0.217	5.20	5.50
E	0.213	0.224	5.40	5.70
e	0.087	0.094	2.20	2.40
e1	0.173	0.189	4.40	4.80
L	0.378	0.409	9.60	10.40
L1	0.114	0.130	2.90	3.30
L2	0.055	0.067	1.40	1.70
L3	0.028	0.039	0.70	1.00

8. Part Marking System





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