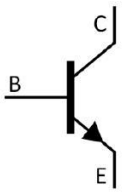
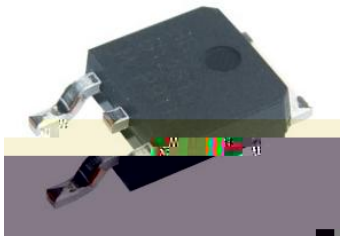
TO-252 NPN Silicon NPN transistor in a TO-252 Plastic Package.

f_T

Low $V_{CE(sat)}$, high current and high f_T, excellent linearity of h_{FE}, fast switching time.

Relay drivers, high-speed inverters, general high-current switching applications.





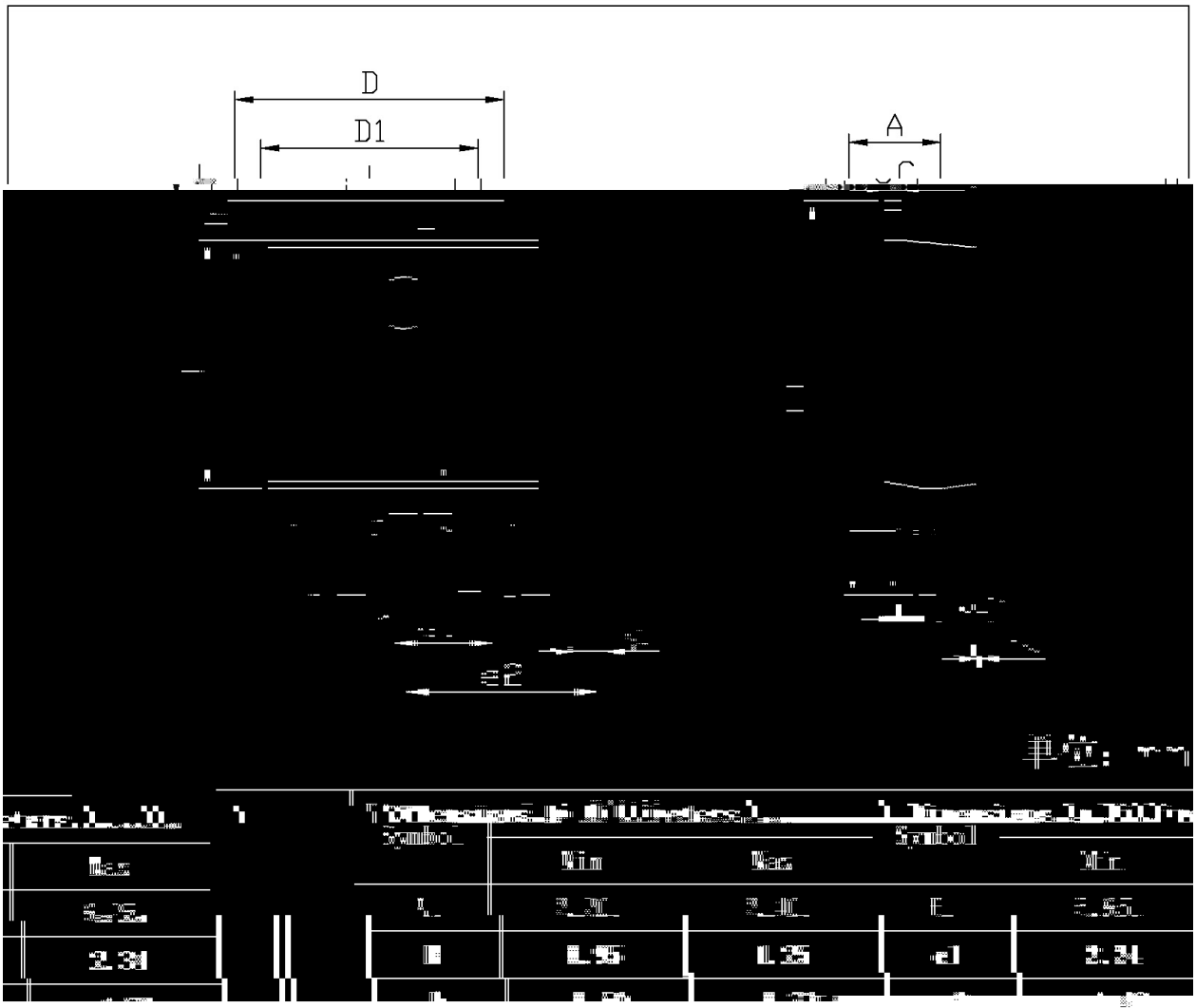
PIN1 Base PIN 2,4 Collector PIN 3 Emitter

/ h_{FE} Classifications & Marking

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	60	V
Collector to Emitter Voltage	V_{CEO}	50	V
Emitter to Base Voltage	V_{EBO}	6	V
Collector Current - Continuous	I_C	5	A
Collector Current – Continuous(Pulse)	I_{CP}	8	A
Collector Power Dissipation	P_C	1.0	W
Collector Power Dissipation	P_C(Tc=25)	20	W
Junction Temperature	T_j	150	
Storage Temperature Range	T_{stg}	-55 150	

Parameter	Symbol	Test Conditions		Min	Typ	Max	Unit
Collector to Base Breakdown Voltage	V_{CBO}	I_C=10μA	I_E=0	60			V
Collector to Emitter Breakdown Voltage	V_{CEO}	I_C=1.0mA	R_{BE}=∞	50			V
Emitter to Base Breakdown Voltage	V_{EBO}	I_E=10μA	I_C=0	6			V
Collector Cut-Off Current	I_{CBO}	V_{CB}=40V	I_E=0			1.0	μA
Emitter Cut-Off Current	I_{EBO}	V_{EB}=4.0V	I_C=0			1.0	μA
DC Current Gain	$h_{FE(1)}$	V_{CE}=2.0V	I_C=0.5A	70		400	V
		I_C=3.0A	I_B=0.15A		0.22	0.4	VD0
	BE(sat)	I_C=3.0A	I_B=0.15A		0.95	1.3	VD0
	T	V_{CE}=5.0V	I_C				

/ Package Dimensions

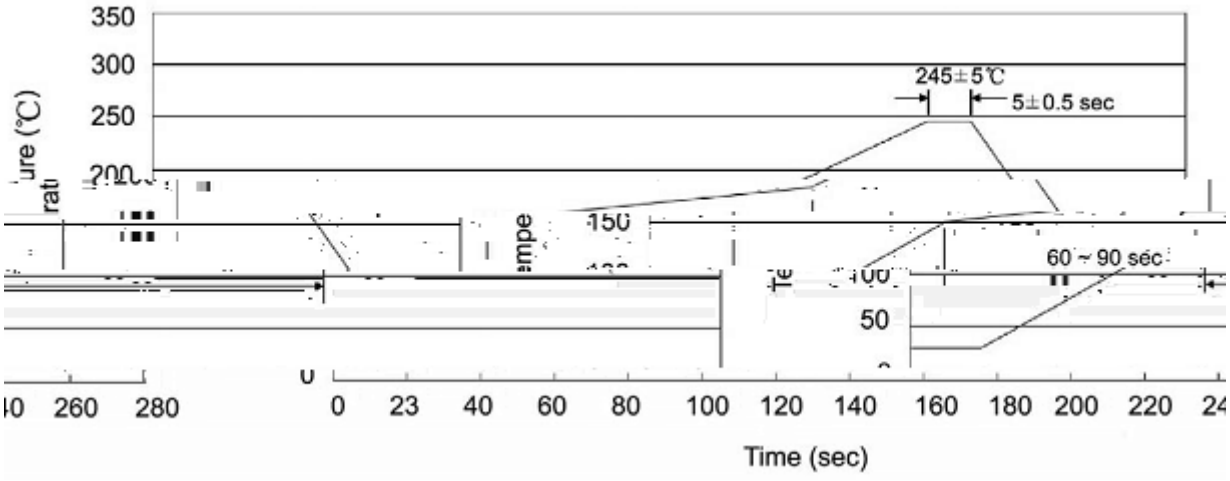


Symbol	Min	Max	Symbol	Min



2SD1803

( ) /



Note:

1 25 150 60 90sec;

1.Preheating:25~150 , Time:60~90sec.

2 245±5 5±0.5sec;

2.Peak Temp.:245±5 , Duration:5±0.5sec.

3 2 10 /sec.

3. Cooling Speed: 2~10 /sec.

/ Resistance to Soldering Heat Test Conditions

260±5 10±1 sec. Temp.:260±5 Time:10±1 sec

/ Packaging SPEC.

/ REEL

Package Type	Units					Dimension		(unit mm^3)