

FrelTec

Mathildenstr. 10A
82319 Starnberg
Germany

Transistor Diode
SOT523

SOT523

SPECIFICATION

FrelTec Transistor Diode

671	2SA1774xxx	ST53	E03
Type	Type	Package	Packing
671: Transistor Diode	2SA1774	SOT523	E03: Embossed tape and reel for 3k pc (7'REEL)

All products according to RoHS (2015/863/EU)

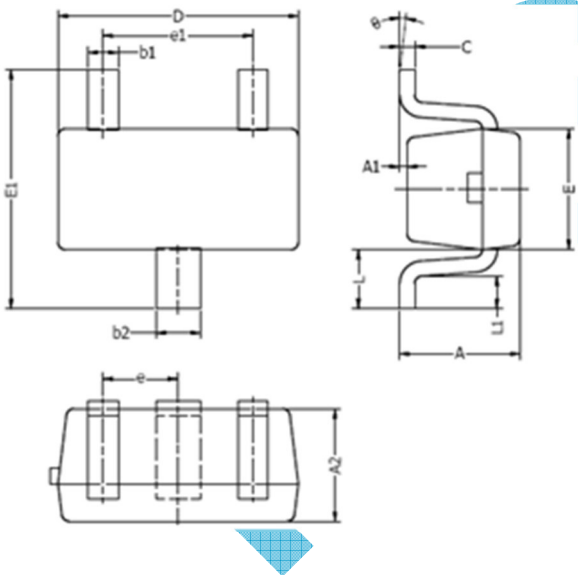
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Transistor Diode

2SA1774

PACKAGE OUTLINE



DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	0.70	0.90	0.028	0.035
A1	0.00	0.10	0.000	0.004
A2	0.70	0.80	0.028	0.031
b1	0.15	0.25	0.006	0.010
b2	0.25	0.35	0.010	0.014
c	0.10	0.20	0.004	0.008
D	1.50	1.70	0.059	0.067
E	0.70	0.90	0.028	0.035
E1	1.45	1.75	0.057	0.069
e	0.50 TYP.		0.020 TYP.	
e1	0.90	1.10	0.035	0.043
L	0.40 REF.		0.016 REF.	
L1	0.10	0.30	0.004	0.012
θ	0°	8°	0°	8°

3/4/2020

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Absolute Maximum Ratings TA = 25°C unless otherwise noted

Symbol	Parameter	Value	Units
PC	Collector Power Dissipation	150	mW
TSTG	Storage Temperature Range	-55 to	°C
TJ	Operating Junction Temperature	+150	°C
VCBO	Collector-Base Voltage	-50	V
VCEO	Collector-Emitter Voltage	-50	V
VEBO	Emitter-Base Voltage	-5	V
IC	Collector Current - Continuous	-100	mA

Electrical Characteristics TA = 25°C unless otherwise noted

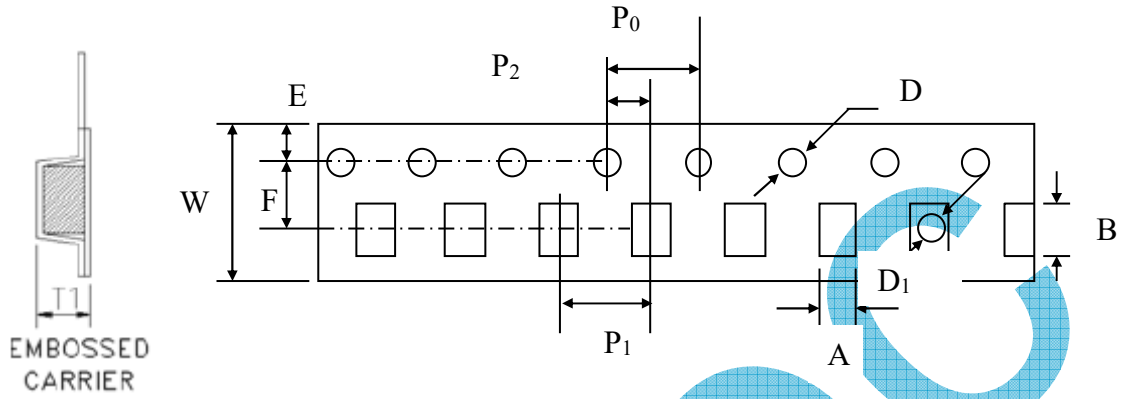
Symbol	Parameter	Test Condition	Limits			Unit
			Min	Typ	Max	
V(BR)CBO	Collector-Base Breakdown Voltage	IC=-50uA, IE=0A	-50			Volts
V(BR)CEO	Collector-Emitter Breakdown Voltage	IC=-1mA, IB=0A	-50			Volts
V(BR)EBO	Emitter-Base Breakdown Voltage	IE=-50uA, IC=0A	-5			Volts
ICBO	Collector Cut-off Current	VCB=-50V, IE=0A			-0.1	µA
IEBO	Emitter Cut-off Current	VEB=-5V, IC=0A			-0.1	µA
hFE	DC Current Gain	VCE=-6V, IC=-1mA	120		560	---
VCE(sat)	Collector-Emitter Saturation Voltage	IC=-50mA, IB=-5mA			-0.5	Volts
VBE(sat)	Base-Emitter Saturation Voltage	IC=-50mA, IB=-5mA			-1.2	Volts
fT	Transition Frequency	VCE =-5V, IC=-10mA		230		MHz
COB	Collector Output Capacitance	VCB =-12V, IE=0A, f=1MHz		3.5		pF

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Tape And Reel Package

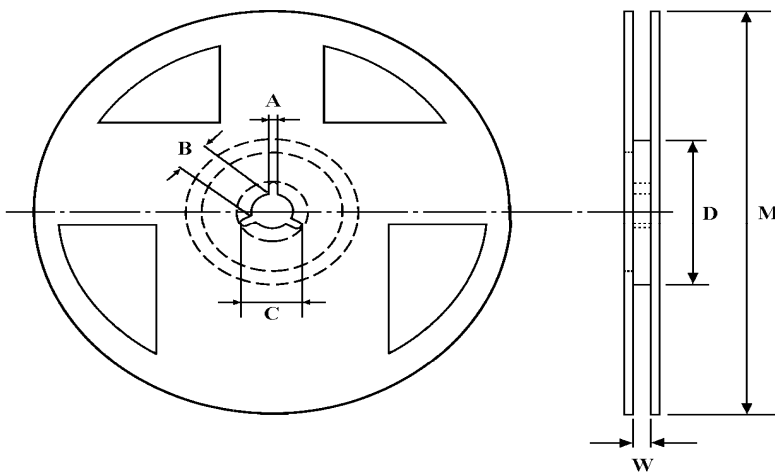
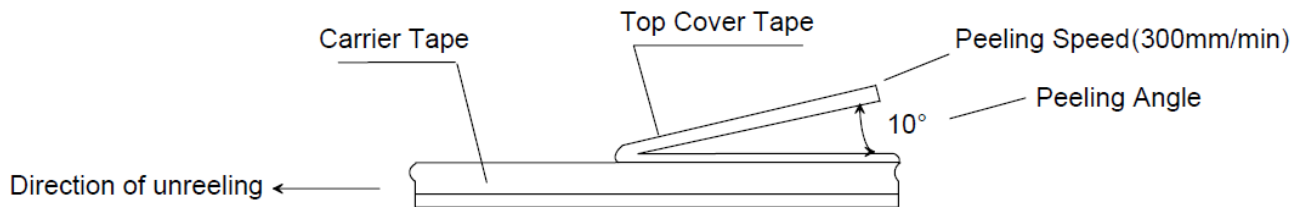


Type	A	B	W	E	F	P ₀	P ₁	P ₂	ΦD	ΦD ₁	T1
	1,73 ±0,1	1,85 ±0,1	8 ±0,30	1,75±0,01	3,5 ±0,05	4,00±0,10	4,00±0,10	2,00±0,05	1,55±0,03	0,4 ±0,5	1 ±0,1

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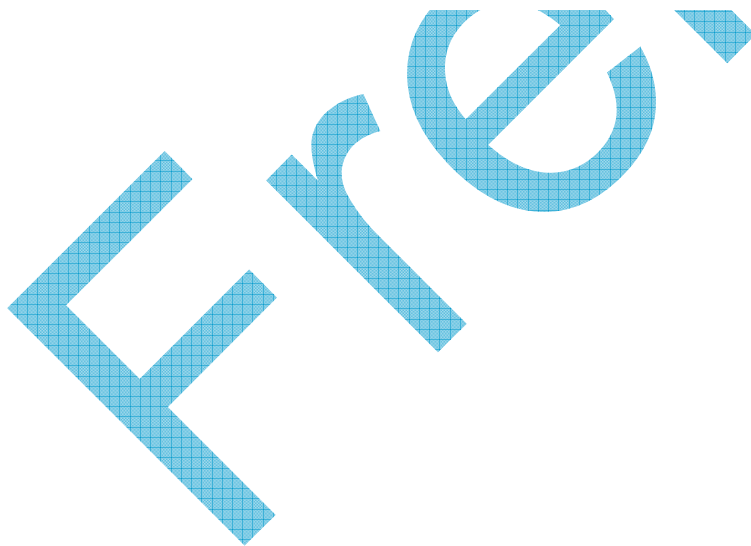
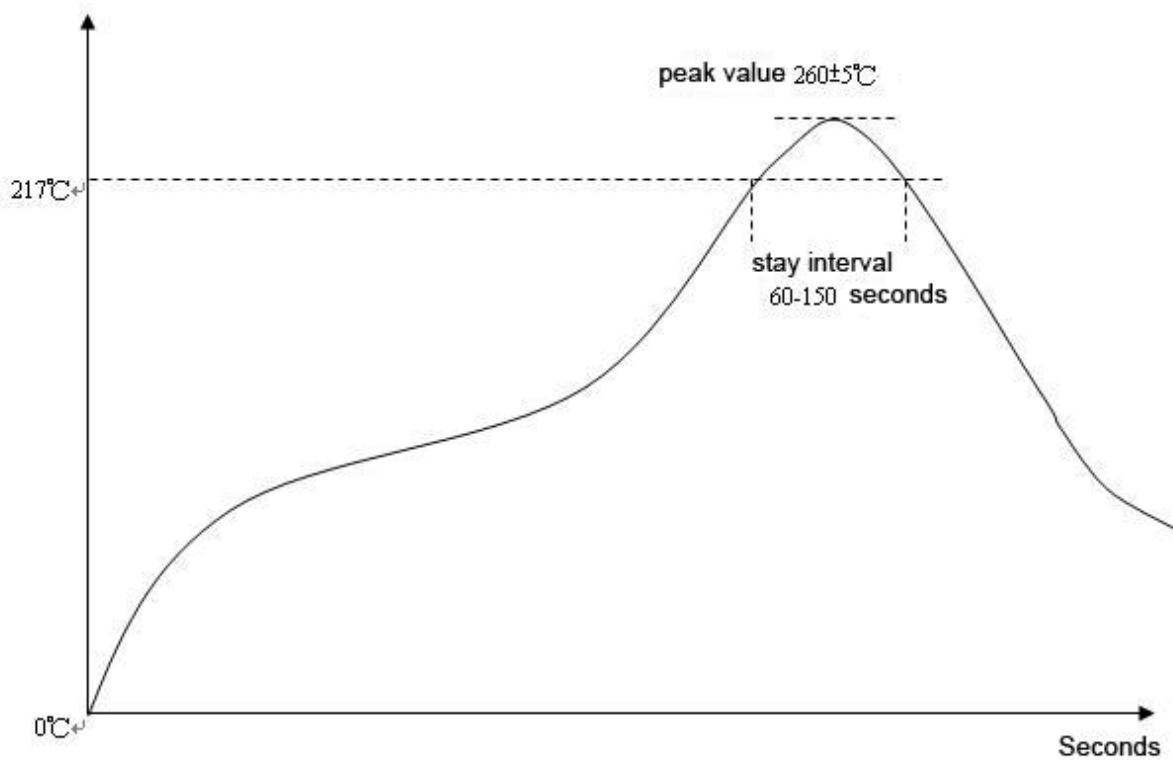
Cover Tape Peel off Strength

Specifications: peel force of top cover tape shall be between 8 to 40g
 The peel speed shall be about 300mm/min±5%



Type	Packaging	M	A	B	C	D	W	T
	Embossed	178,0±1,0	2±0,5	13,5±0,7	21±0,5	60,0+1,0	13,5±1,0	15,5±1,0

Lead Free Reflow Soldering Profile



Stock period

The performance of these products, including the solderability, is guaranteed for 12 month, provided that they remain packed as they were when delivered and stored at a temperature of 25°C ± 3°C and a relative humidity less than 80%RH

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