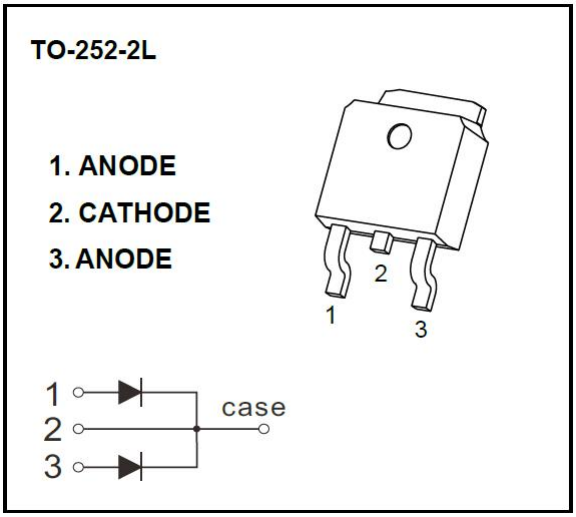
JIANGSU CHANGJING ELECTRONICS TECHNOLOGY CO., LTD.

AD-SBDD10200CT Plastic-Encapsulated Diode

AD-SBDD10200CT Schottky barrier diode



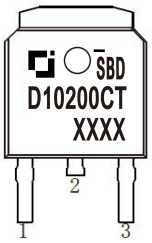
MAIN CHARACTERISTICS

I_O	10A (2X5A)
V_{RRM}	200V
T_j	150°C
$V_{F(typ)}$	0.72V (@ T_j = 125°C)

FEATURES

- Low power loss, high efficiency
- High current capability and low forward voltage drop
- Guard ring die construction for transient protection
- AEC-Q101 qualified

MARKING



S̄BDD10200CT = Device code
XXXX = Date code

MAXIMUM RATINGS (T_j = 25°C unless otherwise specified)

Parameter	Symbol	Value	Unit
Peak repetitive reverse voltage	V_{RRM}	200	V
Working peak reverse voltage	V_{RWM}		
DC blocking voltage	V_R		
RMS reverse voltage	$V_{R(RMS)}$	140	V
Average rectified output current	I_O	10	A
Non-repetitive peak forward surge current @ t = 8.3ms	I_{FSM}	120	A
Thermal resistance from junction to case	$R_{\theta JC}$	5.0	°C/W
Thermal resistance from junction to ambient	$R_{\theta JA}$	100	°C/W
Operating junction temperature range	T_j	150	°C
Storage temperature range	T_{stg}	-55 ~ +150	°C

ELECTRICAL CHARACTERISTICS (T_j = 25°C unless otherwise specified)

Parameter	Symbol	Test condition		Min	Typ	Max	Unit
Reverse breakdown voltage	$V_{(BR)}$	I_R = 0.1mA		200	-	-	V
Reverse voltage leakage current	I_R	V_R = 200V	T_j = 25°C	-	1.0	100	μA
			T_j = 125°C	-	1.0	-	mA
Forward voltage	V_{F1}	I_F = 3A	T_j = 25°C	-	0.80	-	V
			T_j = 125°C	-	0.67	-	
	V_{F2}	I_F = 5A	T_j = 25°C	-	0.84	0.92	
			T_j = 125°C	-	0.72	-	

TYPICAL CHARACTERISTICS

FIG.1: FORWARD CURRENT DERATING CURVE

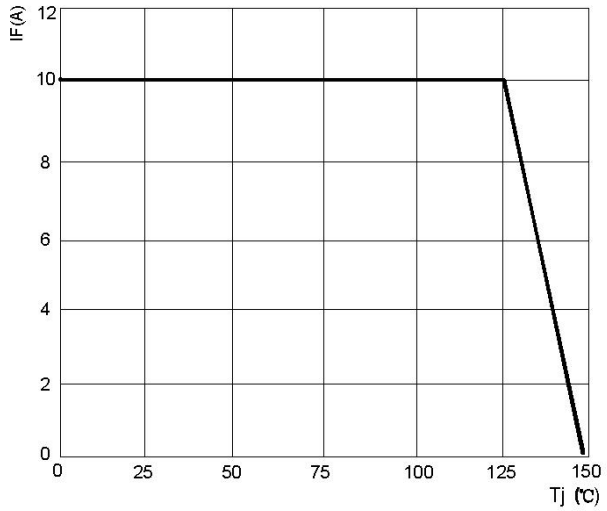


FIG.2: TYPICAL FORWARD CHARACTERISTICS

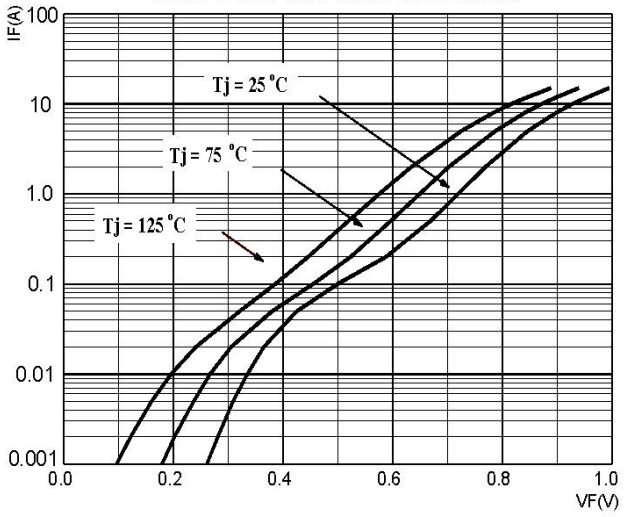


FIG.3: TOTAL CAPACITANCE DERATING CURVE

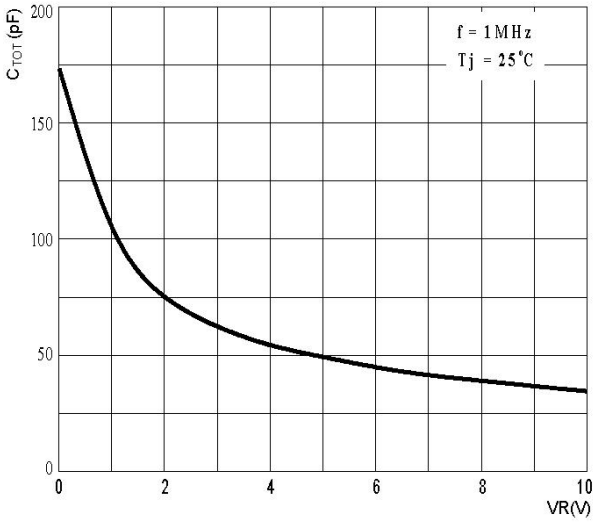
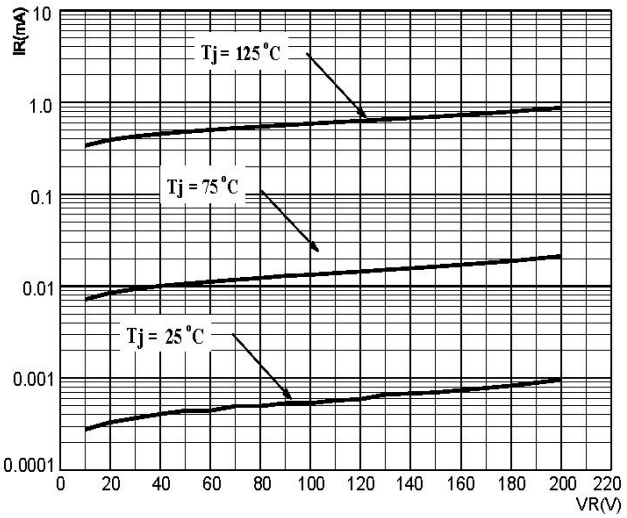
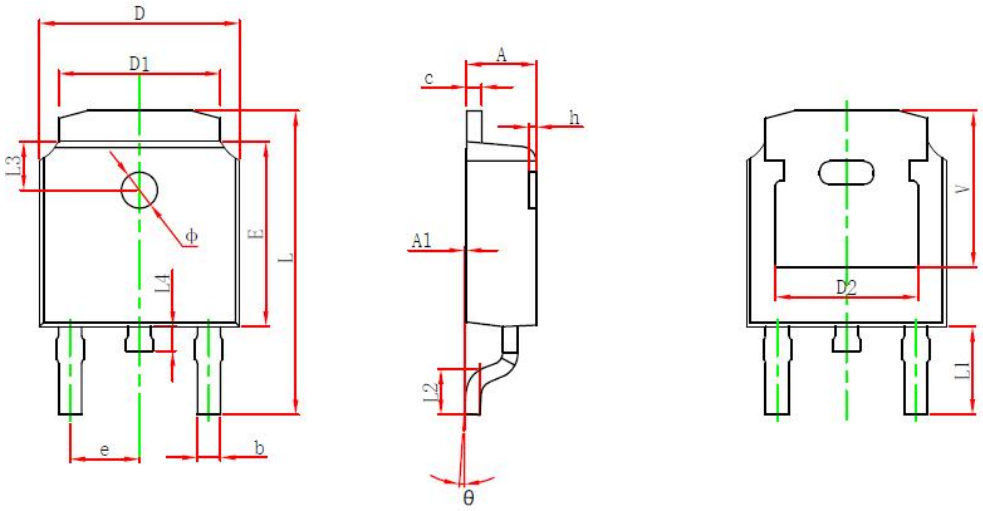


FIG.4: TYPICAL REVERSE CHARACTERISTICS

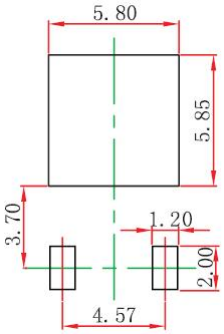


TO-252-2L PACKAGE OUTLINE DIMENSIONS



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	2.200	2.400	0.087	0.094
A1	0.000	0.127	0.000	0.005
b	0.635	0.770	0.025	0.030
c	0.460	0.580	0.018	0.023
D	6.500	6.700	0.256	0.264
D1	5.100	5.460	0.201	0.215
D2	4.830 REF.		0.190 REF.	
E	6.000	6.200	0.236	0.244
e	2.186	2.386	0.086	0.094
L	9.712	10.312	0.382	0.406
L1	2.900 REF.		0.114 REF.	
L2	1.400	1.700	0.055	0.067
L3	1.600 REF.		0.063 REF.	
L4	0.600	1.000	0.024	0.039
Φ	1.100	1.300	0.043	0.051
θ	0°	8°	0°	8°
h	0.000	0.300	0.000	0.012
V	5.250 REF.		0.207 REF.	

TO-252-2L SUGGESTED PAD LAYOUT

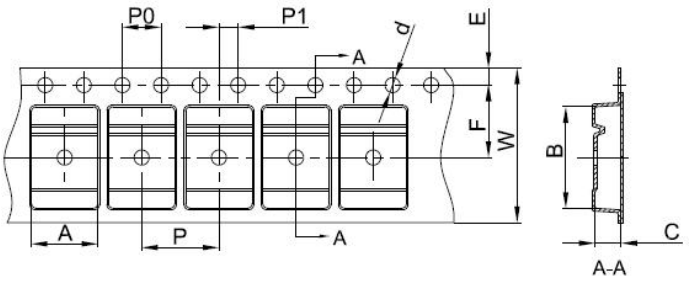


Note:

1. Controlling dimension in millimeters.
2. General tolerance: ±0.05mm.
3. The pad layout is for reference purpose only.

TO-252-2L TAPE AND REEL

TO-252 Embossed Carrier Tape

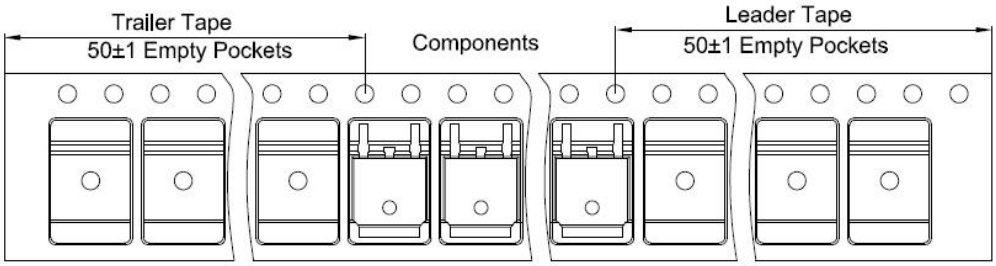


Packaging Description:

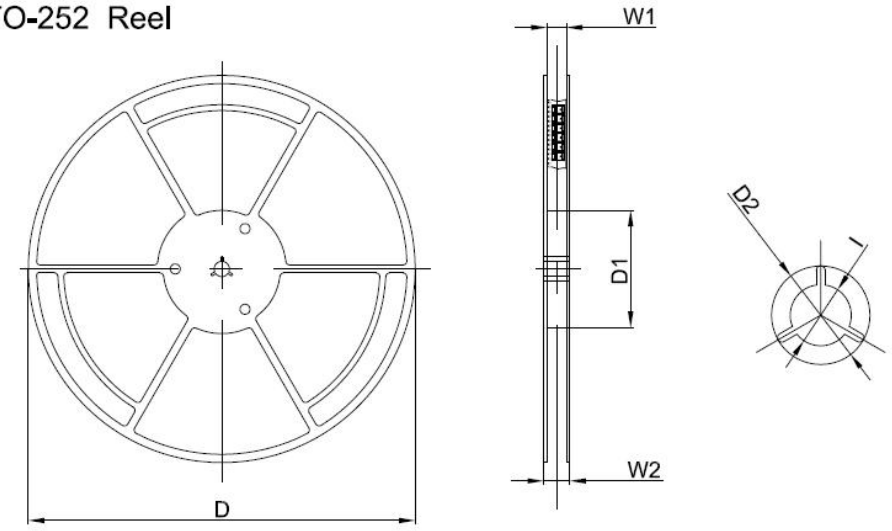
TO-252 parts are shipped in tape. The carrier tape is made from a dissipative (carbon filled) polycarbonate resin. The cover tape is a multilayer film (Heat Activated Adhesive in nature) primarily composed of polyester film, adhesive layer, sealant, and anti-static sprayed agent. These reeled parts in standard option are shipped with 25,00 units per 13" or 33.0 cm diameter reel. The reels are clear in color and is made of polystyrene plastic (anti-static coated).

Dimensions are in millimeter										
Pkg type	A	B	C	d	E	F	P0	P	P1	W
TO-252	6,90	10,50	2,70	Ø1,55	1,75	7,50	4,00	8,00	2,00	16,00

TO-252 Tape Leader and Trailer



TO-252 Reel



Dimensions are in millimeter						
Reel Option	D	D1	D2	W1	W2	I
13"Dia	330.00	100.00	Ø21.00	16.40	21.00	Ø13.00

REEL	Reel Size	Box	Box Size(mm)	Carton	Carton Size(mm)	G.W.(kg)
2,500 pcs	13Inch	2,500 pcs	340×336×29	25,000 pcs	353×346×365	

PUBLISHED BY

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