

## TO-252-2L Plastic-Encapsulate Diodes

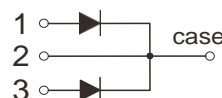
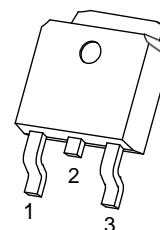
SCHOTTKY BARRIER RECTIFIER

### Features:

- Low Power Loss, High Efficiency
- Guard Ring Die Construction for Transient Protection
- High Current Capability and Low Forward Voltage Drop

TO-252-2L

1. ANODE  
 2. CATHODE  
 3. ANODE



### MARKING



SRD20150CT= Device code  
 XXXX= Code

### MAIN CHARACTERISTICS

<b>I<sub>o</sub></b>	<b>20 ( 2x10 ) A</b>
<b>V<sub>RRM</sub></b>	<b>150 V</b>
<b>T<sub>j</sub></b>	<b>150 °C</b>
<b>V<sub>F(typ)</sub></b>	<b>0.71V ( @T<sub>j</sub>=125°C )</b>

### MAXIMUM RATINGS ( T<sub>a</sub>=25°C unless otherwise noted )

Symbol	Parameter	Value	Unit
<b>V<sub>RRM</sub></b>	Peak repetitive reverse voltage	150	V
<b>V<sub>RWM</sub></b>	Working peak reverse voltage		
<b>V<sub>R</sub></b>	DC blocking voltage		
<b>V<sub>R(RMS)</sub></b>	RMS reverse voltage	105	V
<b>I<sub>o</sub></b>	Average rectified output current	20	A
<b>I<sub>FSM</sub></b>	Non-Repetitive peak forward surge current (8.3ms half sine wave)	150	A
<b>R<sub>θJC</sub></b>	Thermal resistance from junction to case	3.0	°C/W
<b>R<sub>θJA</sub></b>	Thermal resistance from junction to ambient	100	°C/W
<b>T<sub>j</sub></b>	Junction temperature	150	°C
<b>T<sub>stg</sub></b>	Storage temperature	-55~+150	°C

### ELECTRICAL CHARACTERISTICS ( T<sub>a</sub>=25°C unless otherwise specified )

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Reverse voltage	V <sub>(BR)</sub>	I <sub>R</sub> =0.1mA	150			V
Reverse current	I <sub>R</sub>	V <sub>R</sub> =150V	T <sub>j</sub> =25°C	2.0	100	uA
			T <sub>j</sub> =125°C	2.0		mA
Forward voltage	V <sub>F</sub>	I <sub>F</sub> =5A	T <sub>j</sub> =25°C	0.76		V
			T <sub>j</sub> =125°C	0.64		V
		I <sub>F</sub> =10A	T <sub>j</sub> =25°C	0.83	0.9	V
			T <sub>j</sub> =125°C	0.71		V

\*Pulse test: pulse width ≤300μs, duty cycles ≤ 2.0%.

## Typical Characteristics

FIG.1: FORWARD CURRENT DERATING CURVE

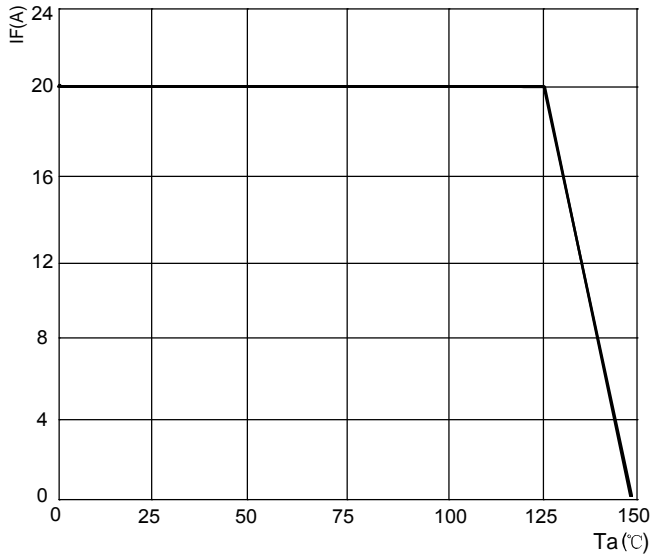


FIG.2: TYPICAL FORWARD CHARACTERISTICS

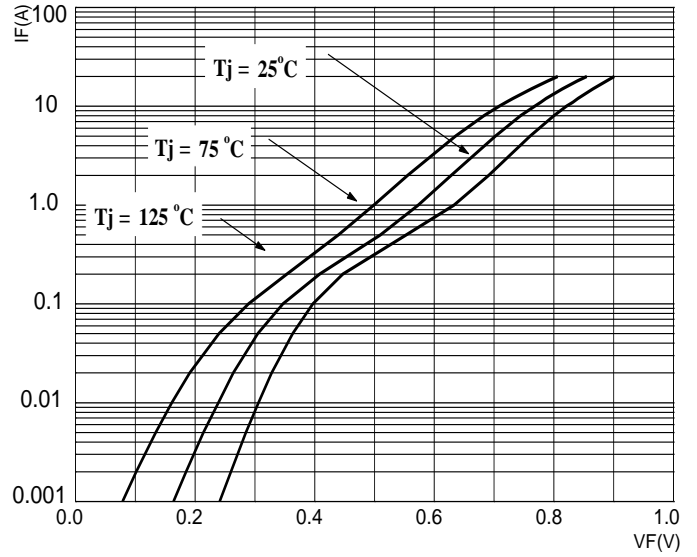


FIG.3: TOTAL CAPACITANCE DERATING CURVE

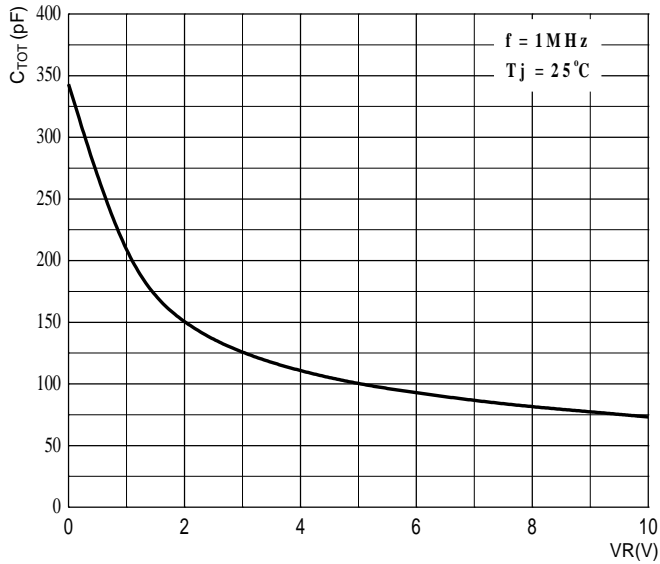
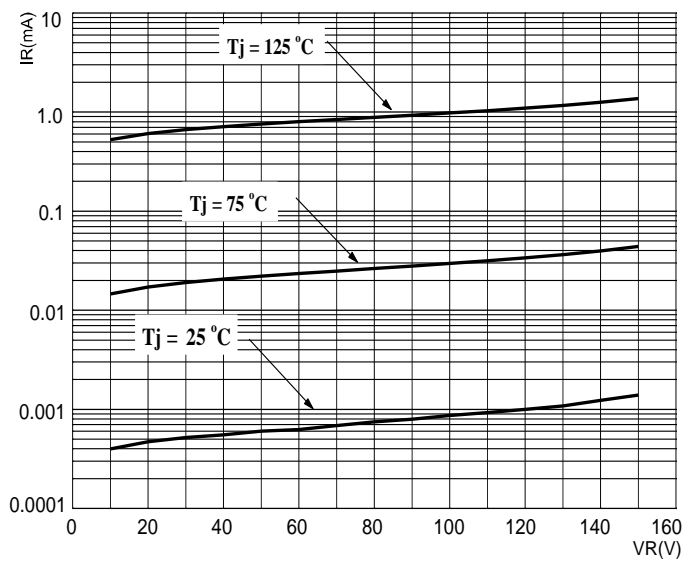
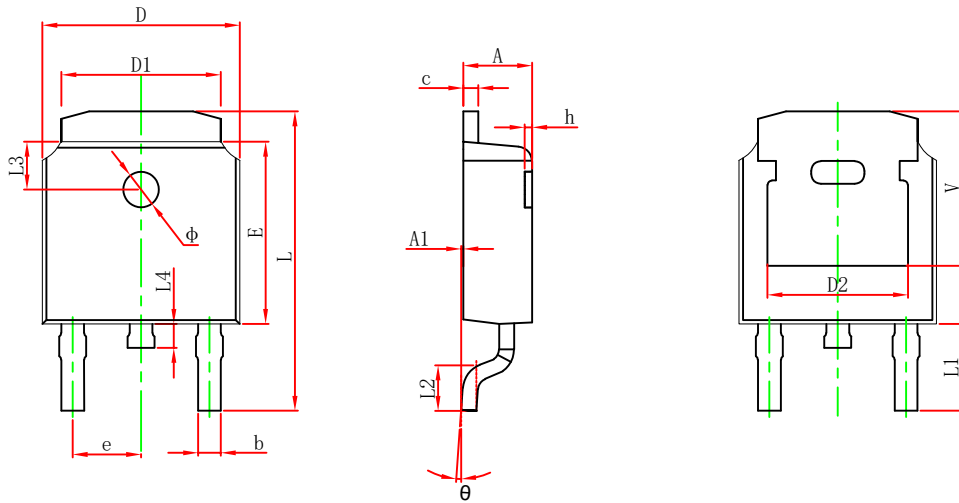


FIG.4: TYPICAL REVERSE CHARACTERISTICS

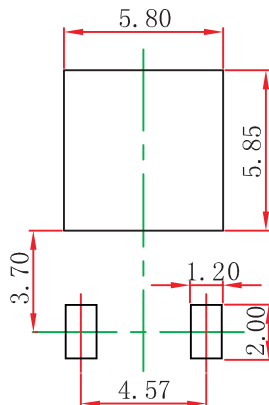


**TO-252-2L Package Outline Dimensions**



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**

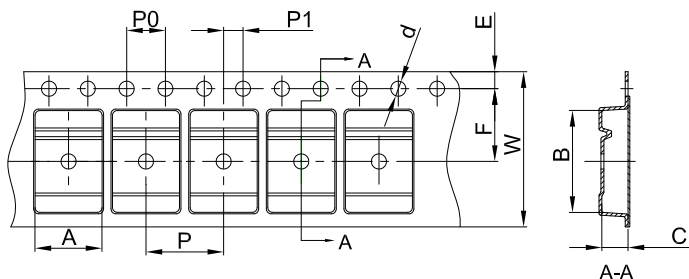


**Note:**

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

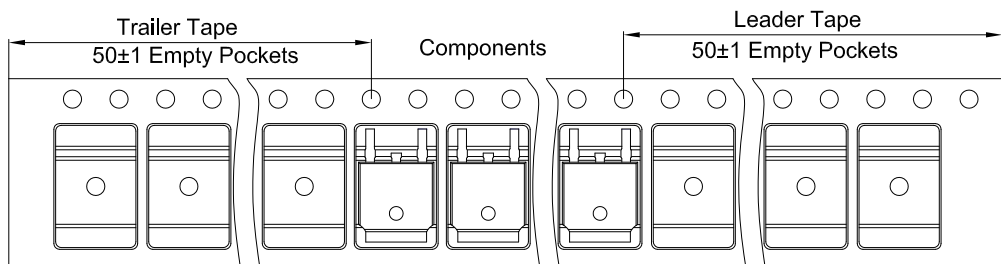
**TO-252-2L Tape and Reel**

**TO-252 Embossed Carrier Tape**

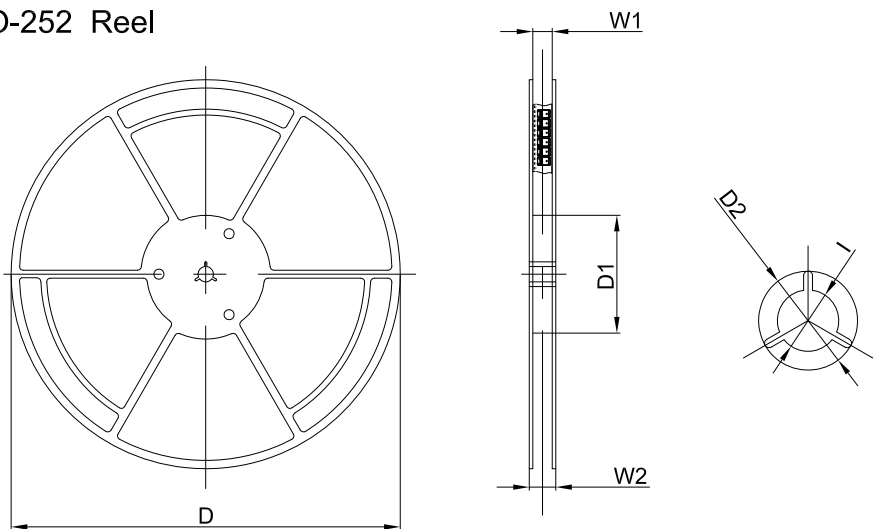


Dimensions are in millimeter										
Pkg type	A	B	C	d	E	F	P0	P	P1	W
TO-252	6.90	10.50	2.70	Ø1.55	1.75	7.50	4.00	8.00	2.00	16.00

**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	