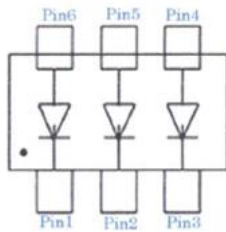
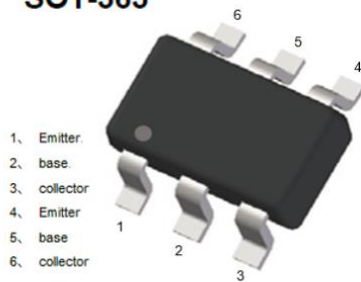


## Schottky Barrier Diodes



**SOT-363**



### Features

- Moisture sensitivity level 1
- Reverse voltage: 40V
- Average forward current : 350mA

### Application

- High frequency and low voltage rectifier

### Mechanical data

- **Package:** SOT-363
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102

### ■ Maximum Ratings ( $T_a=25^\circ\text{C}$ Unless otherwise specified)

Parameter	Symbol	Unit	Value	
			SD103ATW	KLL
Repetitive peak reverse voltage	$V_{RRM}$	V	40	
Forward current	$I_F$	mA	350	
Non-repetitive Surge peak forward current @ $t=8.3\text{ms}$ half-sine wave	$I_{FSM}$	A	1.5	
Non-repetitive Surge peak forward current @ $t=1\text{ms}$ square wave			5	
Repetitive Peak Forward Current @ $t_p=1\text{ms}$ , $\delta=0.25$	$I_{FRM}$	A	1	
Power dissipation	$P_D$	mW	200	
Junction temperature	$T_J$	$^\circ\text{C}$	-55 to +125	
Storage temperature	$T_{STG}$	$^\circ\text{C}$	-55 to +125	



# SD103ATW

**RoHS**  
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## ■ Electrical Characteristics (T<sub>a</sub>=25°C Unless otherwise specified)

Parameter	Symbol	Unit	Conditions	Min	Typ	Max
Reverse voltage	V <sub>R</sub>	V	I <sub>R</sub> =0.1mA	40		
Forward voltage	V <sub>F1</sub>	V	I <sub>FM</sub> =1mA			0.27
	V <sub>F2</sub>	V	I <sub>FM</sub> =5mA			0.32
	V <sub>F3</sub>	V	I <sub>FM</sub> =20mA			0.37
	V <sub>F4</sub>	V	I <sub>FM</sub> =100mA			0.50
Reverse leakage current	I <sub>R1</sub>	uA	V <sub>R</sub> =10V			2
	I <sub>R2</sub>	uA	V <sub>R</sub> =30V			5
Junction capacitance	C <sub>j</sub>	pF	V <sub>R</sub> =0V, f=1MHz			50
Reverse Recovery Time	T <sub>rr</sub>	ns	I <sub>F</sub> =I <sub>R</sub> =200mA, I <sub>rr</sub> =0.1*I <sub>R</sub> , R <sub>L</sub> =100Ω			10

## ■ Thermal Characteristics

Parameter	Symbol	Unit	Value
Thermal resistance, junction-to-ambient	R <sub>θJ-A</sub> <sup>(1)</sup>	°C/W	500
Thermal resistance, junction-to-case	R <sub>θJ-C</sub> <sup>(1)</sup>	°C/W	400

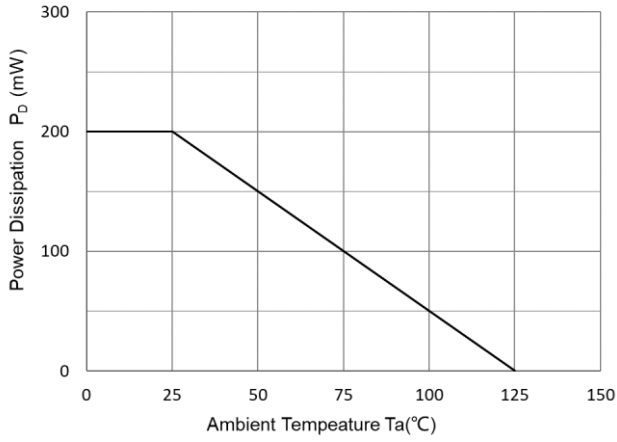
Note:

(1) Device mounted on PCB, single-sided copper, with standard footprint

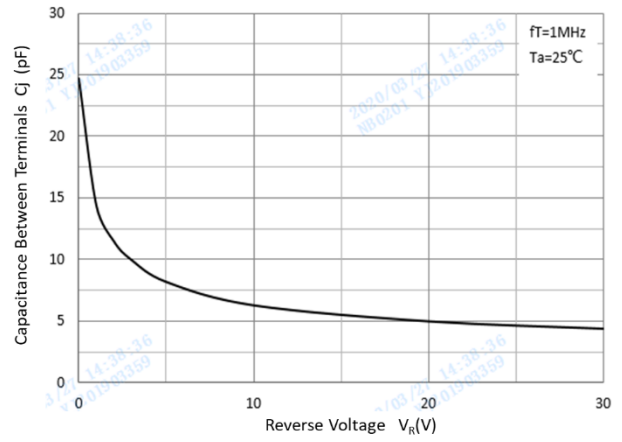


## ■ Characteristics

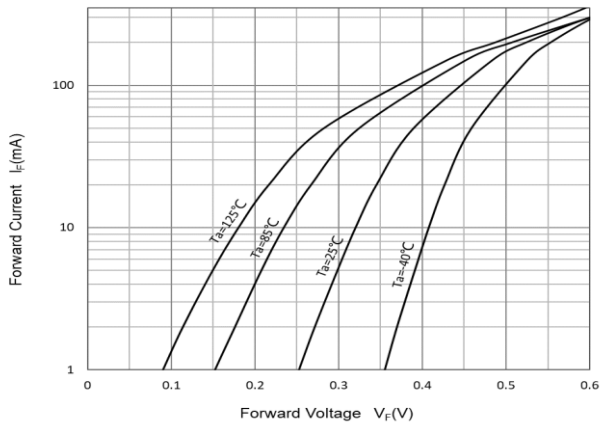
**Fig 1:  $P_D$ - $T_a$  Curve**



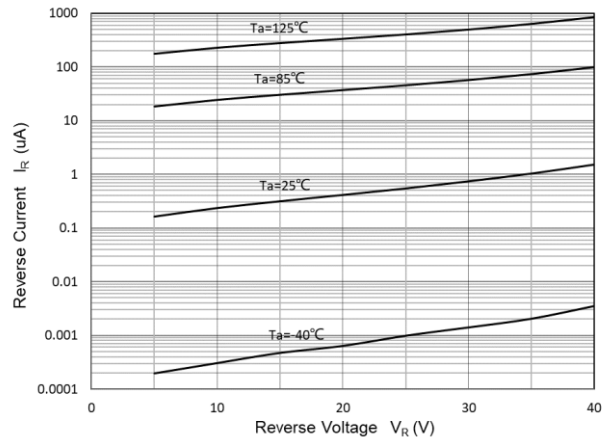
**Fig 2: Capacitance Capability**



**Fig 3: Typical Forward Characteristics**



**Fig 4: Typical Reverse Characteristics**





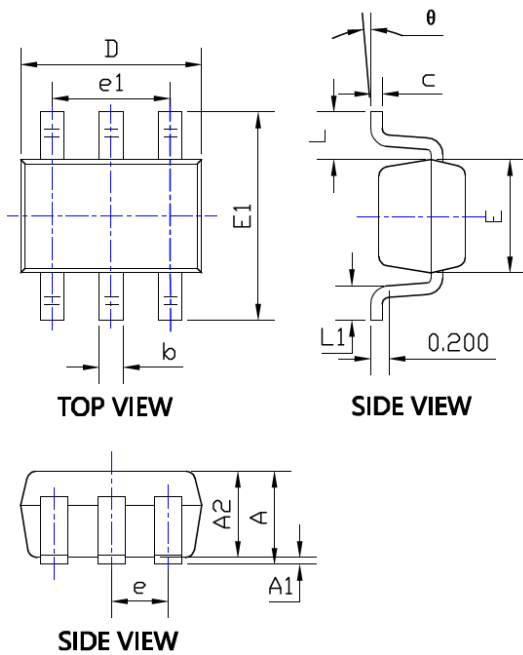
# SD103ATW

**RoHS**  
COMPLIANT

## Ordering Information

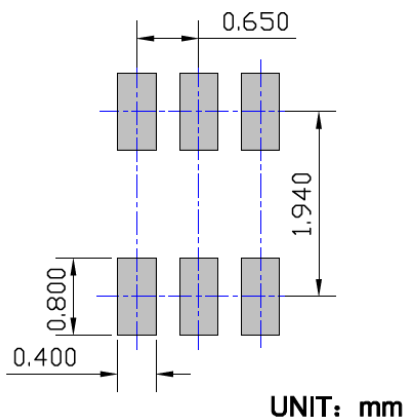
Preferred P/N	Packing code	Unit weight(g)	Minimum package(pcs)	Inner box quantity(pcs)	Outer carton quantity (pcs)	Delivery mode
SD103ATW	F2	Approximate 0.009	3000	30000	120000	7" reel
SD103ATW	F3	Approximate 0.009	10000	/	210000	7" reel

## Outline Dimensions



SYMBOL	DIMENSIONS			
	INCHES		Millimeter	
	MIN.	MAX.	MIN.	MAX.
A	0.035	0.043	0.900	1.100
A1	0.000	0.004	0.000	0.100
A2	0.035	0.039	0.900	1.000
b	0.006	0.014	0.150	0.350
c	0.004	0.010	0.100	0.250
D	0.071	0.087	1.800	2.200
E	0.045	0.053	1.150	1.350
E1	0.085	0.096	2.150	2.450
e	0.026TYP		0.650TYP	
e1	0.047	0.055	1.200	1.400
L	0.021REF		0.525REF	
L1	0.010	0.018	0.260	0.460
$\theta$	0°	8°	0°	8°

## Suggested Pad Layout





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