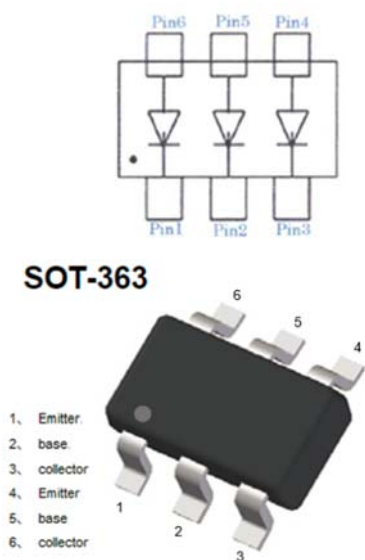


Schottky Barrier Diodes



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°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=8.3ms half-sine wave	I _{FSM}	A	1.5	
Non-repetitive Surge peak forward current @ t=1ms square wave			5	
Power dissipation	P _D	mW	200	
Junction temperature	T _J	°C	-55 to +125	
Storage temperature	T _{STG}	°C	-55 to +125	



SD103ATW

RoHS
COMPLIANT

■ Electrical Characteristics (T_a=25°C Unless otherwise specified)

Parameter	Symbol	Unit	Conditions	Min	Typ	Max
Reverse voltage	V _R	V	I _R =0.1mA	40		
Forward voltage	V _{F1}	V	I _{FM} =1mA			0.27
	V _{F2}	V	I _{FM} =5mA			0.32
	V _{F3}	V	I _{FM} =20mA			0.37
	V _{F4}	V	I _{FM} =100mA			0.50
Reverse leakage current	I _{R1}	uA	V _R =10V			2
	I _{R2}	uA	V _R =30V			5
Junction capacitance	C _j	pF	V _R =0V, f=1MHz			50
Reverse Recovery Time	T _{rr}	ns	I _F =I _R =200mA, I _{rr} =0.1*I _R , R _L =100Ω			10

■ Thermal Characteristics

Parameter	Symbol	Unit	Value
Thermal resistance, junction-to-ambient	R _{θJ-A} ⁽¹⁾	°C/W	500
Thermal resistance, junction-to-case	R _{θJ-C} ⁽¹⁾	°C/W	400

Note:

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



■ Characteristics

Fig 1: P_D - T_a Curve

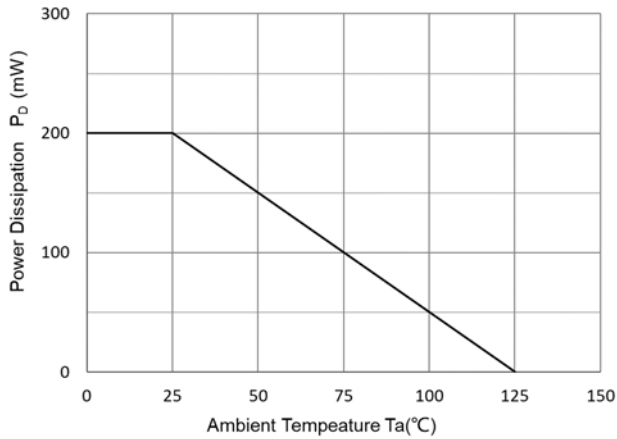


Fig 2: Capacitance Capability

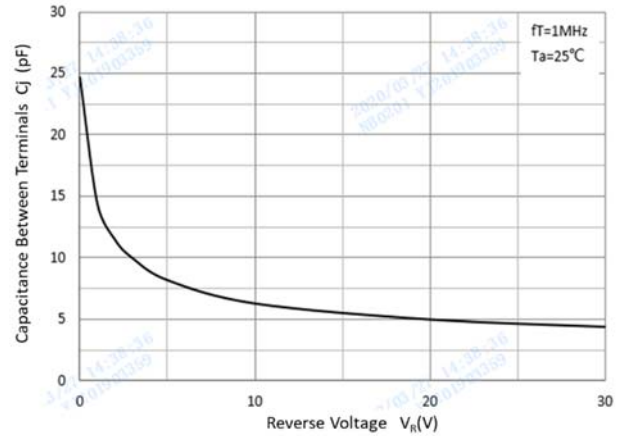


Fig 3: Typical Forward Characteristics

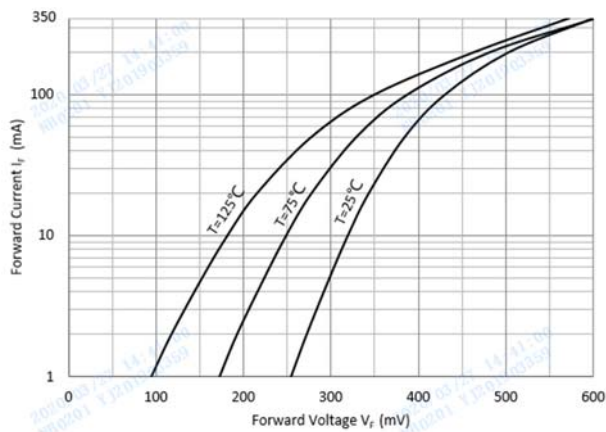
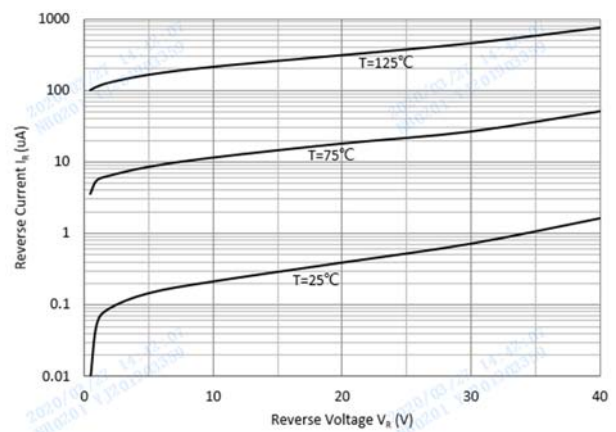


Fig 4: Typical Reverse Characteristics





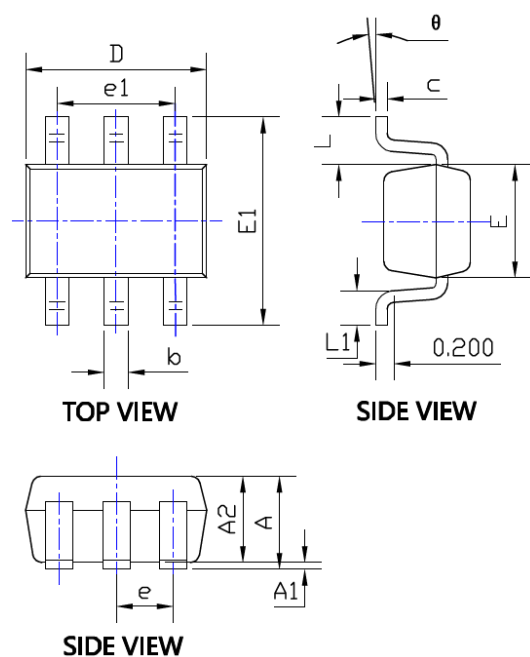
SD103ATW

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■ Ordering Information

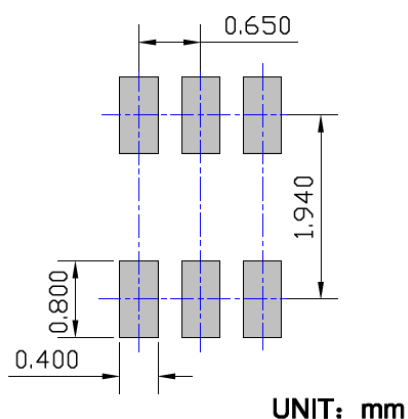
Preferred P/N	Packing code	Unit weight(g)	Minimum package(pcs)	Inner box quantity(pcs)	Outer carton quantity (pcs)	Delivery mode
SD103ATW	F2	Approximate 0.009	3000	30000	120000	7" reel
SD103ATW	F3	Approximate 0.009	10000	/	210000	7" reel

■ 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
θ	0°	8°	0°	8°

■ Suggested Pad Layout





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