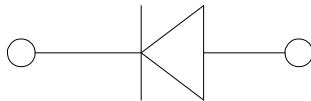
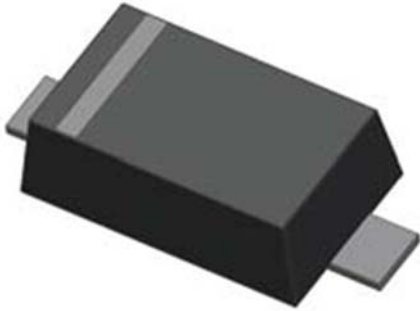


## Small-Signal Fast Switching Diodes



### Features

- Moisture sensitivity level 1
- Reverse voltage: 80V
- Average forward current : 100mA

### Application

- High frequency rectifier
- Signal switching

### Mechanical data

- **Package:** SOD-523
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102

### ■ Maximum Ratings (T<sub>a</sub>=25°C Unless otherwise specified)

Parameter	Symbol	Unit	Value
Device marking code			A
Repetitive peak reverse voltage	V <sub>RRM</sub>	V	90
Forward current	I <sub>FM</sub>	mA	225
Average rectified output current	I <sub>O</sub>	mA	100
Non-repetitive surge peak forward current @ t=8.3ms half-sine wave	I <sub>FSM</sub>	A	2
Non-repetitive surge peak forward current @ t=1ms square wave			1.5
Power dissipation	P <sub>D</sub>	mW	150
Junction temperature	T <sub>J</sub>	°C	-55 to +150
Storage temperature	T <sub>STG</sub>	°C	-55 to +150



## ■ 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> =100uA	80		
Forward voltage	V <sub>F</sub>	V	I <sub>F</sub> =100mA			1.2
Reverse leakage current	I <sub>R</sub>	uA	V <sub>R</sub> =80V			0.1
Junction capacitance	C <sub>j</sub>	pF	V <sub>R</sub> = 0.5V, f =1MHZ			3
Reverse recovery time	T <sub>rr</sub>	ns	V <sub>R</sub> =6V, I <sub>F</sub> =10mA, R <sub>L</sub> =100 Ω			4

## ■ Thermal Characteristics

Parameter	Symbol	Unit	Value
Thermal resistance, junction-to-ambient	R <sub>θJ-A</sub> <sup>(1)</sup>	°C/W	833
Thermal resistance, junction-to-case	R <sub>θJ-C</sub> <sup>(1)</sup>	°C/W	667

### Note:

(1) Thermal resistance from junction to ambient and from junction to case mounted on P.C.B. with 8mm\*9mm copper pad areas



■ Characteristics

Fig 1:  $P_D$ - $T_a$  Curve

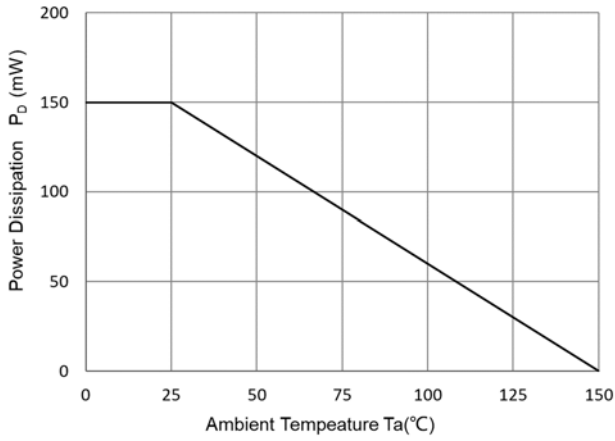


Fig 2: Capacitance Capability

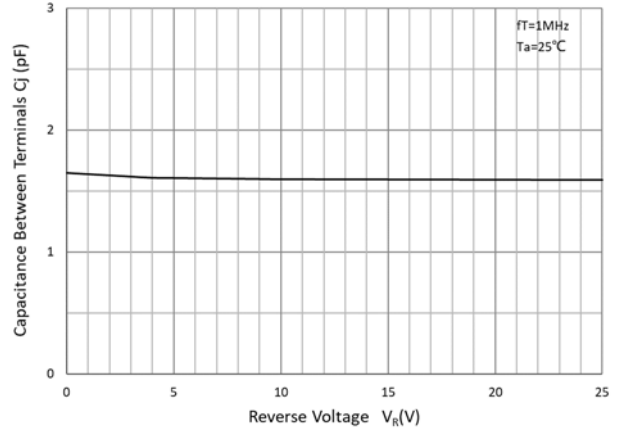


Fig 3: Typical Forward Characteristics

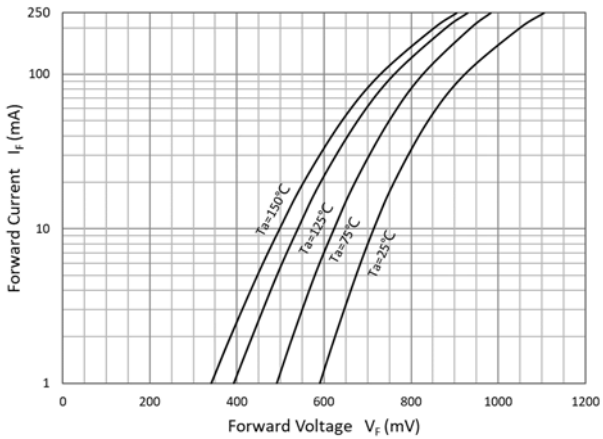
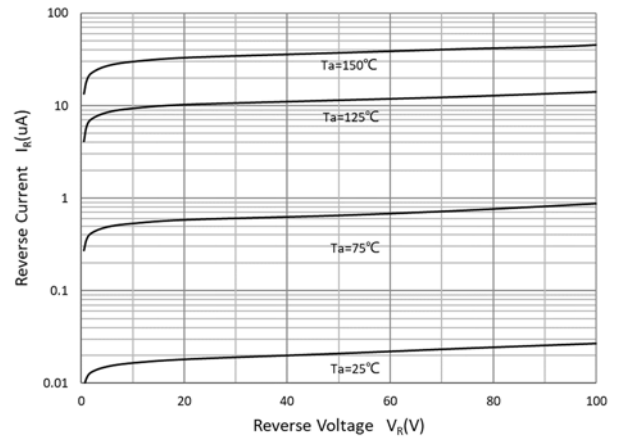


Fig 4: Typical Reverse Characteristics





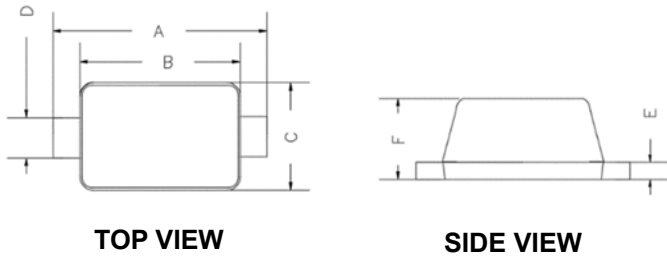
# 1SS400

RoHS  
COMPLIANT

## ■ Ordering Information

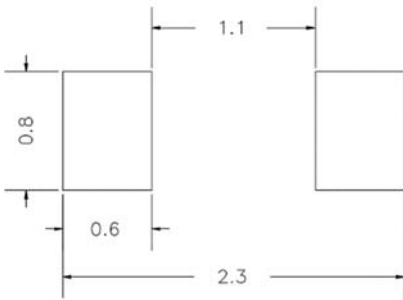
Preferred P/N	Packing code	Unit weight(g)	Minimum package(pcs)	Inner box quantity(pcs)	Outer carton quantity(pcs)	Delivery mode
1SS400	F2	Approximate 0.002	8000	80000	320000	7" reel
1SS400	F3	Approximate 0.002	3000	30000	120000	7" reel

## ■ Outline Dimensions



DIMENSIONS				
DIM	INCHES		MM	
	MIN	MAX	MM	MAX
A	0.059	0.067	1.500	1.700
B	0.043	0.051	1.100	1.300
C	0.028	0.035	0.700	0.900
D	0.010	0.014	0.250	0.350
E	0.002	0.008	0.050	0.200
F	0.020	0.028	0.500	0.700

## ■ Suggested Pad Layout



UNIT: mm



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