





SFC3005A Flip Chip Schottky Diode



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Circuit Diagram

Features

- Schottky diode for high-speed switching
- Case: WLCSP
- Very small dimensions:1.0mm*0.6mm*0.28mm
- 0.5A forward current
- Low forward voltage drop
- Low capacitance
- Low reverse current(<10uA @30V)

Applications

- high efficiency DC/DC conversion
- fast switching
- protecting and clamping

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Maximum Ratings:

Characteristics	Symbol	Condition	Max.	Units
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V _{RRM} V _{RWM} VR	-	30	V
Average Rectified Forward Current	I _{F (AV)}	50/60Hz, sinus @Tc=25°C	0.5	А
Peak One Cycle Non-Repetitive Surge Current	I _{FSM}	8.3ms, Half Sine pulse	5	А
Power dissipation	P _{tot}		450	mW

Electrical Characteristics:

Characteristics	Symbol	Condition	Тур.	Max.	Units
	VF	IF=1mA	0.27	0.30	v
		IF=10mA	0.34	0.40	
Forward Voltage Drop *		IF=100mA	0.45	0.52	
		IF=200mA	0.53	0.60	
		IF=500mA	0.73	0.85	
	I _R	$V_R = 5V$	0.1	1	
Deveree Current*		V _R = 10V	0.2	2	
Reverse Current*		V _R = 30V	3	10	uA
		@T _J = 25 °C			
Junction Capacitance	Ст	V _R = 5V, f _{SIG} = 1MHz @T _C = 25 °C	11	15	pF

* Pulse width < 300 $\mu s, \ duty \ cycle < 2\%$

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Thermal-Mechanical Specifications:

Characteristics	Symbol	Condition	Specification	Units
Junction Temperature	TJ	-	150	°C
Storage Temperature	T _{stg}	-	-65 to +150	°C
Operating temperature range	T _{op}	-	-55 to +125	°C
Typical Thermal Resistance Junction to Ambient Air	R _{0JA}	DC operation	280	K/W

Ratings and Characteristics Curves



Forward Current vs. Forward Voltage







Reverse Leakage Current vs. Temperature



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Ordering Information:

Device	Package	Plating	Shipping	
SFC3005A	WLCSP	Cu+Sn	6000pcs/reel	

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification.

Mechanical Dimensions (in millimeters:WLCSP)



Item	Material	mechanical size(mm)			
	Wateria	min	typ	max	
Α	Si	0.240	0.260	0.280	
A1	Cu		0.008		
A2	Sn		0.003		
A3	PI	0.003	0.004	0.005	
b			0.500		
L2		0.200	0.250	0.300	
L3		0.200	0.250	0.300	
е			0.650		
D		0.590		0.63	
E		0.990		1.03	

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Carrier Tape and Reel Specification(in millimeters)



Marking Diagram



= cathode = week code
= year code
= device code

Technical Data Data Sheet N2008, Rev. -

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