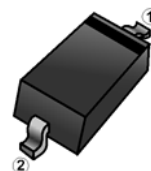


RoHS Compliant Product
A suffix of "-C" specifies halogen & lead-free

FEATURES

- Fast Switching Speed
- Ultra-Small Surface Mount Package
- For General Purpose Switching Applications
- High Conductance

SOD-323



MECHANICAL DATA

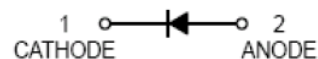
- Case: SOD-323, Plastic
- Epoxy: UL 94V-0 Rate Flame Retardant
- Metallurgically Bonded Construction
- Polarity: Color Band Denotes Cathode End
- Mounting position: Any

MARKING

T4

PACKAGE INFORMATION

Package	MPQ	Leader Size
SOD-323	3K	7 inch



ORDER INFORMATION

Part Number	Type
SCS4148WS-C	Lead (Pb)-free and Halogen-free

ABSOLUTE MAXIMUM RATINGS

(Rating 25°C ambient temperature unless otherwise specified. Single phase half wave, 60Hz, resistive or inductive load.
For capacitive load, de-rate current by 20%.)

Parameters	Symbol	Ratings	Unit
Non-Repetitive Peak Reverse Voltage	V_{RSM}	100	V
Peak Repetitive Reverse Voltage	V_{RRM}	75	V
Working Peak Reverse Voltage	V_{RWM}		
DC Blocking Voltage	V_R		
RMS Reverse Voltage	$V_{R(RMS)}$	53	V
Average Rectified Output Current	I_O	150	mA
Repetitive Peak Forward Current	I_{FRM}	300	mA
Non-Repetitive Peak Forward Surge Current @t=1μs	I_{FSM}	2	A
Power Dissipation ¹	P_D	200	mW
Thermal Resistance Junction-Ambient ¹	$R_{\theta JA}$	625	°C/W
Operating & Storage Temperature Range	T_J, T_{STG}	-55~150	°C

ELECTRICAL CHARACTERISTICS ($T_A=25^\circ\text{C}$ unless otherwise specified)

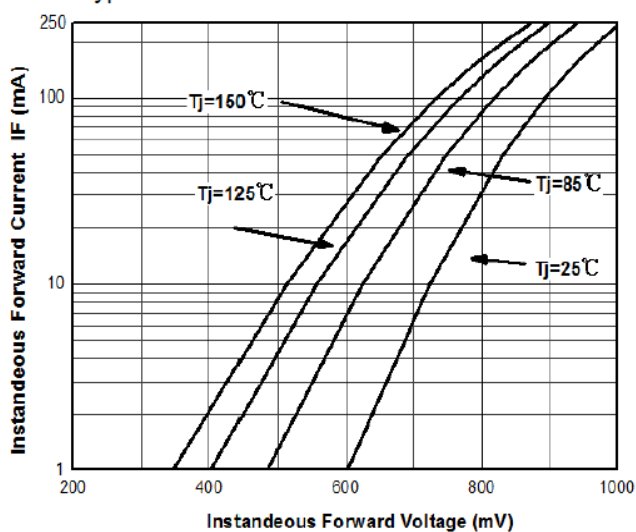
Parameters	Symbol	Min.	Typ.	Max.	Unit	Test Conditions
Reverse Breakdown Voltage	V_{RM}	75	-	-	V	$I_R=5\mu\text{A}$
Forward Voltage ²	V_F	-	0.62	0.72	V	$I_F=5\text{mA}$
		-	-	1		$I_F=10\text{mA}$
		-	-	1		$I_F=50\text{mA}$
Peak Reverse Current ²	I_R	-	-	5	μA	$V_R=75\text{V}$
		-	-	25	nA	$V_R=20\text{V}$
Total Capacitance	C_T	-	2	-	pF	$V_R=0, f=1\text{MHz}$
Reverse Recovery Time	T_{RR}	-	4	-	nS	$I_F=I_R=10\text{mA}$ $I_{rr}=0.1 \times I_R, R_L=100\Omega$

Notes:

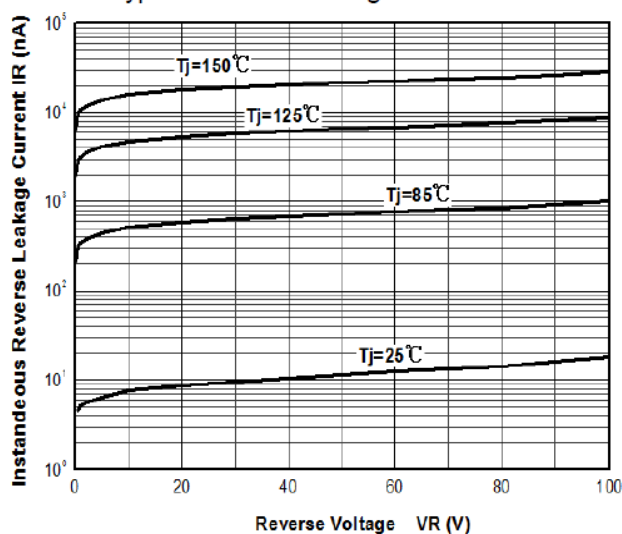
- Part mounted on FR-4 PC board with recommended pad layout.
- Short duration test pulse used to minimize self-heating effect.

CHARACTERISTIC CURVES

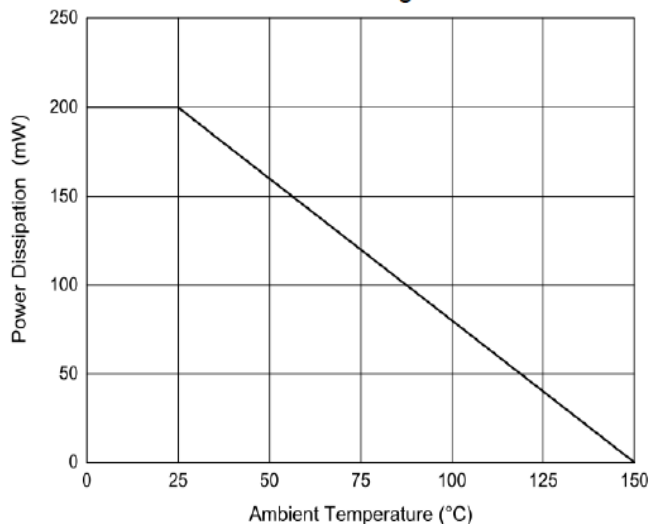
Typical Instantaneous Forward Characteristics



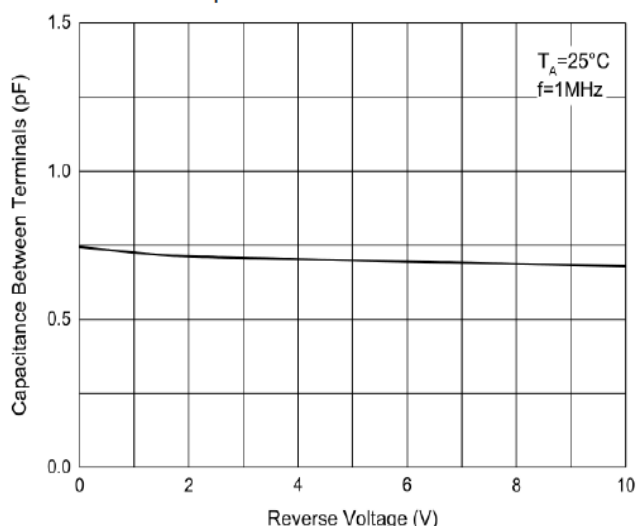
Typical Reverse Leakage Characteristics



Power Derating Curve

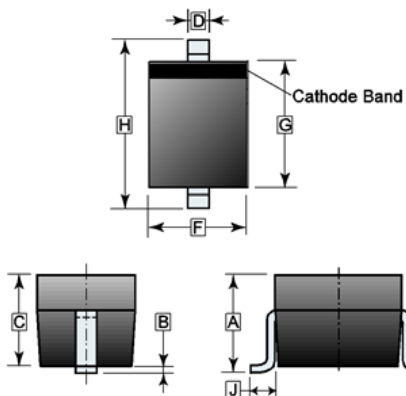


Capacitance Characteristics



PACKAGE OUTLINE DIMENSIONS

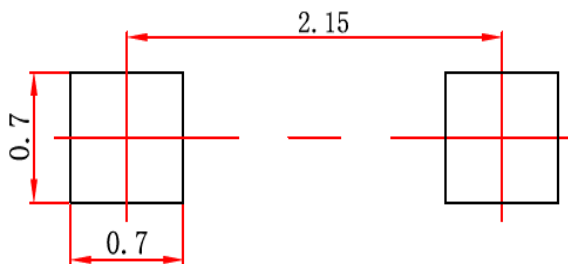
SOD-323



REF.	Millimeter	
	Min.	Max.
A	1.05 REF.	
B	0.07 REF.	
C	0.80	1.10
D	0.25	0.40
E	0.05	0.25
F	1.10	1.50
G	1.50	1.95
H	2.30	2.80
J	0.475 REF.	

MOUNTING PAD LAYOUT

SOD-323



*Dimensions in millimeters