

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

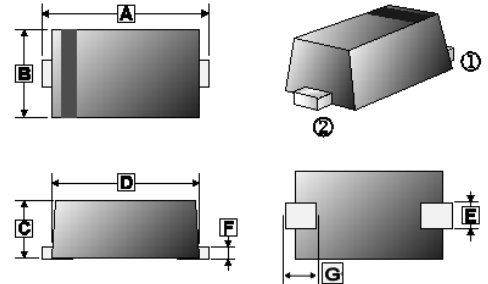
FEATURES

- Small Surface Mounting Type
- Low Reverse Current and Low Forward Voltage
- High Reliability
- Qualified to AEC-Q101 Standards for High Reliability

MECHANICAL DATA

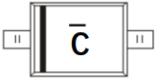
- Case: SOD-523, Molded Plastic
- Molding Compound: UL Flammability Classification Rating 94V-0
- Terminals: Matte Tin-Plated Leads; Solderability per MIL-STD-202, Method 208
- Mounting Position: Any

SOD-523



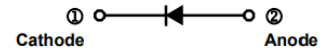
REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	1.50	1.70	E	0.25	0.40
B	0.70	0.90	F	0.05	0.20
C	0.50	0.77	G	0.30	0.45
D	1.10	1.30			

MARKING



PACKAGE INFORMATION

Package	MPQ	Leader Size
SOD-523	8K	7 inch



ORDER INFORMATION

Part Number	Type
SCS521SCR-C	Lead (Pb)-free and Halogen-free

ABSOLUTE MAXIMUM RATINGS (T_A=25°C unless otherwise noted)

Parameter	Symbol	Ratings	Unit
Repetitive Peak Reverse Voltage	V _{RRM}	30	V
DC Blocking Voltage	V _{DC}	30	V
Maximum Average Forward Output Current	I _F	200	mA
Peak Forward Surge Current @8.3ms Single Half Sine-Wave	I _{FSM}	1	A
Power Dissipation	P _D	150	mW
Thermal Resistance, Junction-Ambient ¹	R _{θJA}	667	°C/W
Thermal Resistance, Junction-Lead	R _{θJL}	658	
Thermal Resistance, Junction-Case	R _{θJC}	421	
Operating Junction & Storage Temperature Range	T _J , T _{STG}	-40~125, -40~150	°C

ELECTRICAL CHARACTERISTICS (T_A=25°C unless otherwise specified)

Parameters	Symbol	Min.	Typ.	Max.	Unit	Test Conditions
Forward Voltage ²	V _F	-	-	0.5	V	I _F =200mA
Maximum Peak Reverse Current ³	I _R	-	-	30	μA	V _R =10V

Notes:

1. Part mounted on FR-4 board with recommended pad layout.
2. Pulse width ≤ 380μs, Duty cycle < 2%.
3. Pulse test: t_p ≤ 5ms.

RATINGS AND CHARACTERISTIC CURVES

Fig. 1 Typical Reverse Characteristics

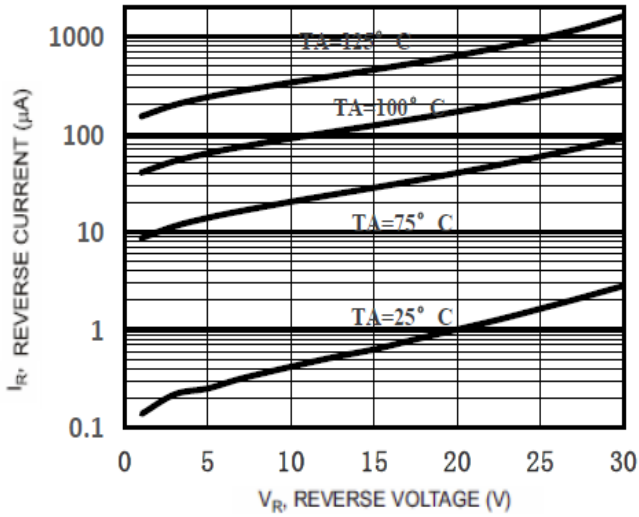


Fig. 2 Typical Forward Characteristics

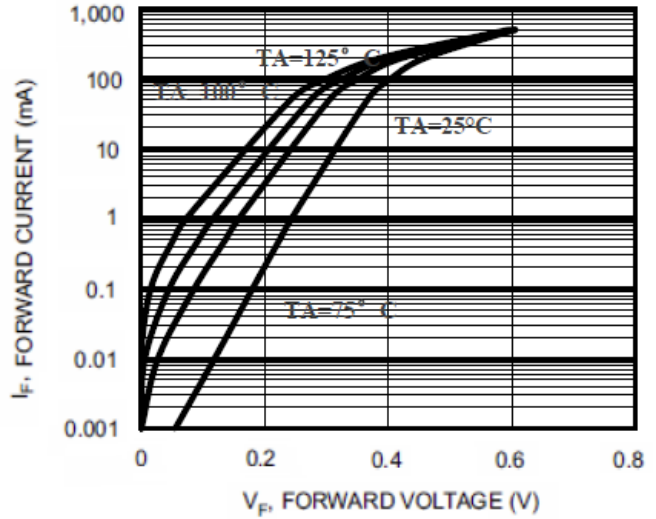


Fig. 3 Capacitance Characteristics

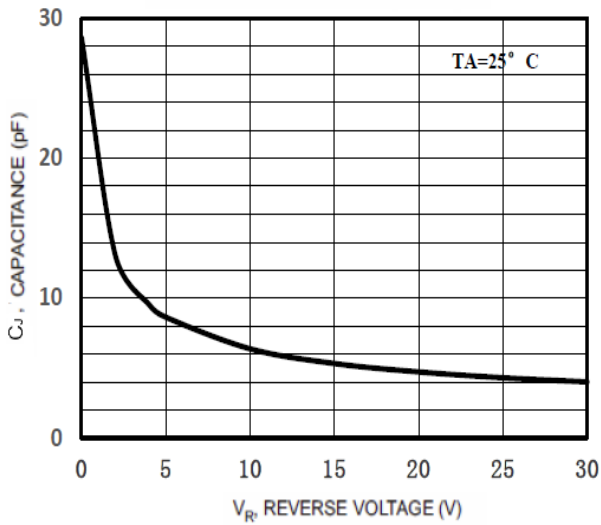


Fig. 4 Derating Curve

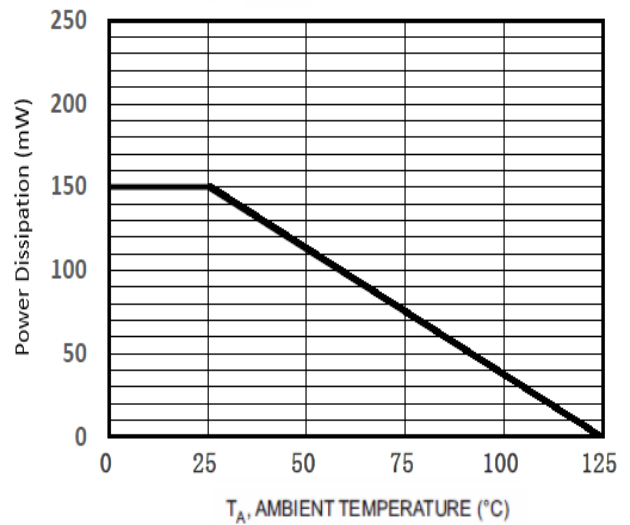


Fig. 5 Mounting Pad Layout

