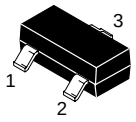
Elektronische Bauelemente

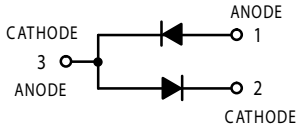
SCS226K

Surface Mount Device
Ultra High Speed Switching Diode

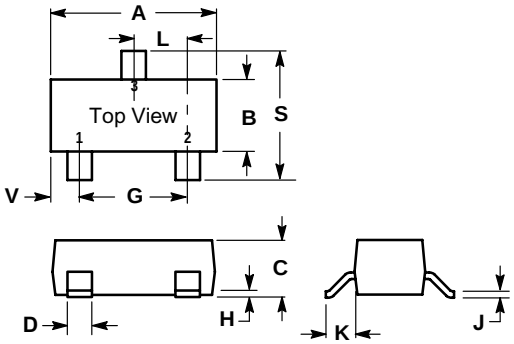
RoHS Compliant Product

A suffix of "-C" specifies halogen & lead-free





SOT-23



Device Marking: A7

SOT-23		
Dim	**Min**	**Max**
A	2.800	3.040
B	1.200	1.400
C	0.890	1.110
D	0.370	0.500
G	1.780	2.040
H	0.013	0.100
J	0.085	0.177
K	0.450	0.600
L	0.890	1.020
S	2.100	2.500
V	0.450	0.600
All Dimension in mm		

● FEATURES

- . Silicon Epitaxial Planar Diodes
- . Ultra High Speed
- . Low forward voltage : $V_F(3)$ = 0.9 V (Typ.)
- . Fast reverse recovery time : t_{rr} = 1.6 ns (Typ.)
- . Small total capacitance : C_T = 0.9 pF (Typ.)

● MECHANICAL DATA

- . Case: SOT-23 Molded Glass
- . Terminals : Solder Plated, Solderable Per MIL-STD-750, Method 2026
- . Polarity: Indicated by Cathode band
- . Mounting position: Any
- . Weight: 0.012 grams (approx.)

● ABSOLUTE MAXIMUM RATINGS

Rating 25 ℃ ambient temperature unless otherwise specified.
Single phase half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

TYPE NUMBER	SYMBOL	SCS226K	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	85	V
Working Peak Reverse Voltage	V_R	80	V
Maximum Peak Forward Current	I_{FM}	300 (Note1)	mA
Average Forward Current	I_O	100 (Note1)	mA
Peak Forward Surge Current, Single Half Sine-wave Superimposed on Rated Load (JEDEC Method), 10ms	I_{FSM}	2 (Note1)	A
Power Dissipation	P	500	mW
Operating Temperature	T_J	125	℃
Storage Temperature Range	T_{STG}	-55 ~ +125	℃

NOTE:
1. Unit Rating. Total Rating = Unit Rating × 0.7.

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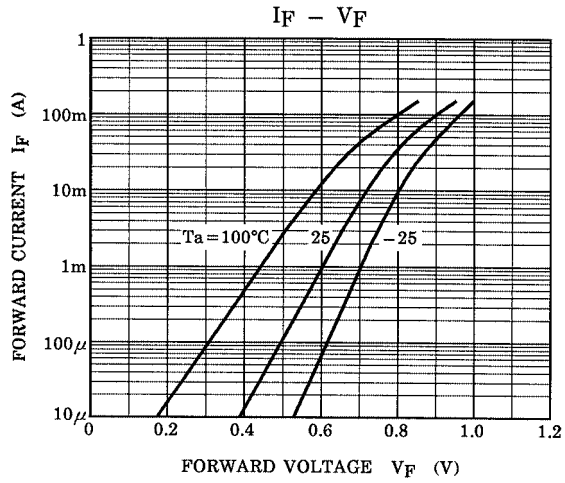
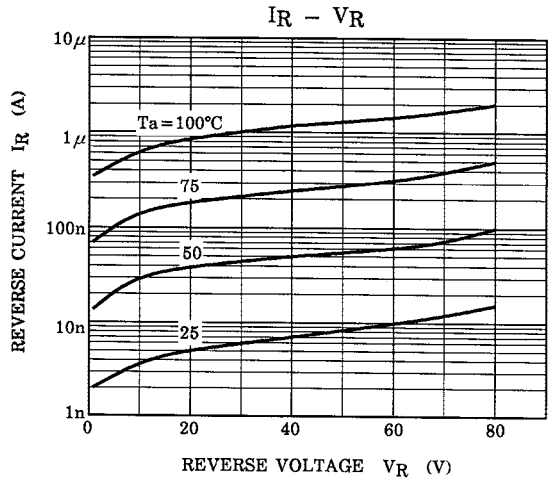
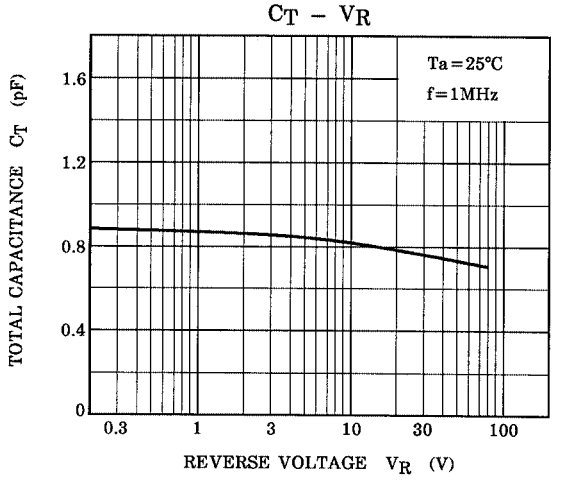
●ELECTRICAL CHARACTERISTICS (Ta=25℃)

TYPE NUMBER	TEST CONDITIONS	SYMBOL	Min.	Typ.	Max.	UNITS
Forward Voltage	I_F=1 mA	$V_{F(1)}$	-	0.60	-	V
	I_F=10 mA	$V_{F(2)}$	-	0.72	-	
	I_F=100 mA	$V_{F(3)}$	-	0.90	1.20	
Reverse Current	V_R=30 V	$I_{R(1)}$	-	-	0.1	μA
	V_R=80 V	$I_{R(2)}$	-	-	0.5	
Diode Capacitance	V_R=0 V, f=1MHz	C_T	-	0.9	3.0	pF
Reverse Recovery Time	I_F=10 mA, (Fig.1)	t_{rr}	-	1.6	4.0	ns

●RATING AND CHARACTERISTIC CURVES







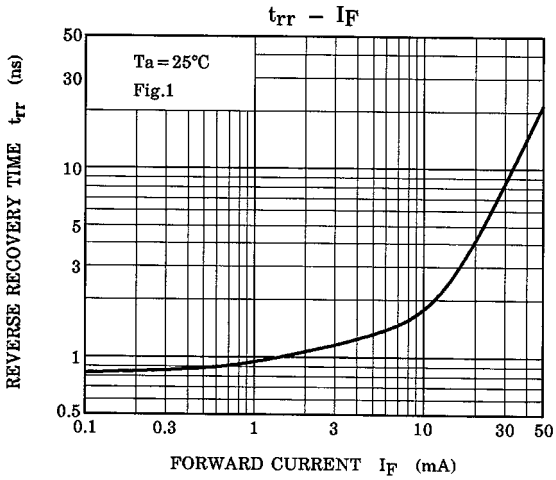


Fig.1 Reverse recovery time (t_{rr}) test circuit