



SURFACE MOUNT SWITCHING DIODE

CDSN4148SE**Description**

The CDSN4148SE is designed for high-speed switching application in hybrid thick-and thin-film circuits.

Features

- High speed switching
- High mounting capability, strong surge withstand, high reliability

Mechanical data

- Case:1206(3216) standard package, molded plastic
- Terminals: Solder plated, solderable per MIL-STD-750 method 2026
- Polarity: Indicated by cathode band
- Mounting position: Any
- Weight: 0.0085 gram(approximately)

Absolute Maximum Ratings (at $T_A=25^{\circ}\text{C}$ unless otherwise specified)

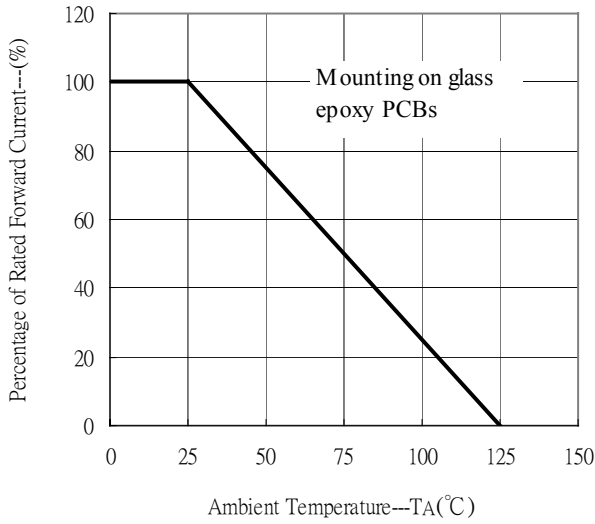
Characteristics	Symbol	Value	Unit
Reverse Voltage	V_R	75	V
Repetitive Peak Reverse Voltage	V_{RRM}	100	V
Average Forward Current	I_O	150	mA
Surge Forward Current	I_{FSM}	@ $t_p=1 \mu\text{s}$ 4	A
		@ $t_p=1 \text{s}$ 1	
Power Dissipation	P_D	350	mW
Junction Temperature	T_j	-55 to +175	$^{\circ}\text{C}$
Storage Temperature Range	T_s	-55 to +175	$^{\circ}\text{C}$

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

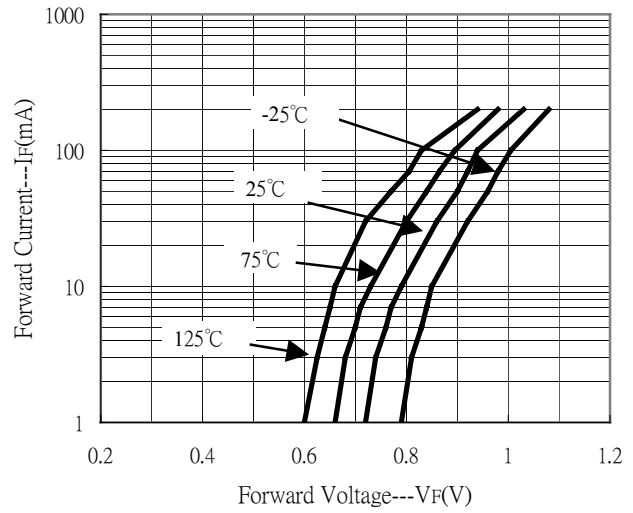
Characteristics	Symbol	Min	Typ	Max	Unit	
Forward Voltage at $I_F=50\text{mA}$	V_F	-	-	1	V	
Reverse Current	I_R	$V_R=20\text{V}$	-	-	25	nA
		$V_R=75\text{V}$	-	-	2.5	μA
Capacitance between terminals at $f=1\text{MHz}$ and 0V reverse voltage	C_T	-	-	3	pF	
Reverse Recovery Time From $I_F=-I_R=10\text{mA}$ to $I_{RR}=-1\text{mA}$, $V_R=6\text{V}$, $R_L=50\Omega$	t_{rr}	-	-	4	ns	

Characteristic Curves

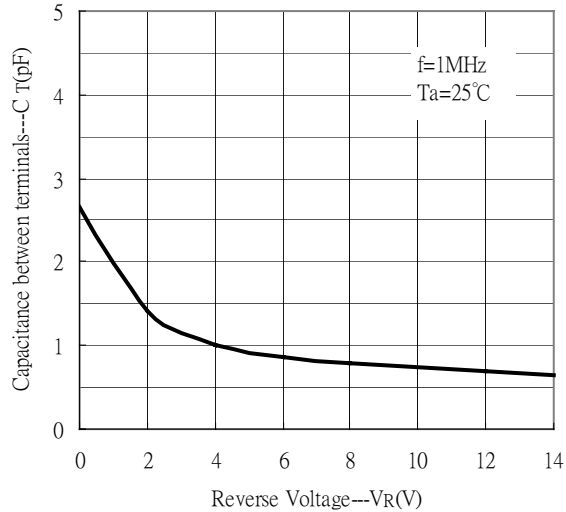
Forward Current Derating Curve



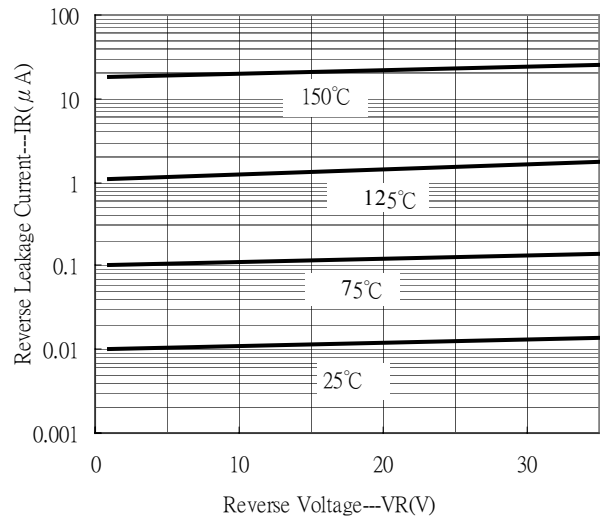
Forward Current vs Forward Voltage



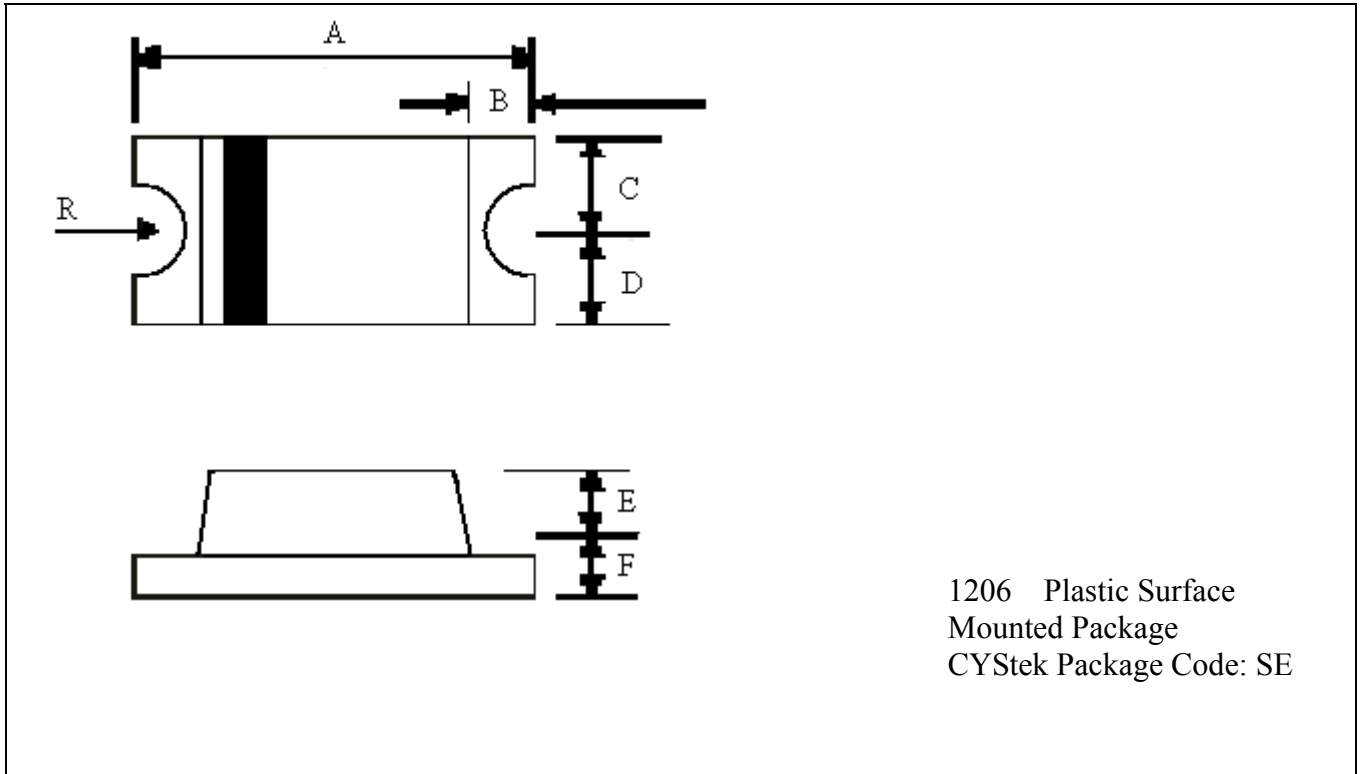
Capacitance vs Reverse Voltage



Reverse Leakage Current vs Reverse Voltage



1206 Dimension



*:Typical

DIM	Inches		Millimeters		DIM	Inches		Millimeters	
	Min.	Max.	Min.	Max.		Min.	Max.	Min.	Max.
A	0.118	0.126	3.00	3.20	E	0.043(typ)		1.1(typ)	
B	0.020(typ)		0.50(typ)		F	0.035(typ)		0.9(typ)	
C	0.063(typ)		1.6(typ)		R	0.010(typ)		0.25(typ)	
D	0.055(typ)		1.4(typ)		-	-	-	-	-

Notes : 1.Controlling dimension : millimeters.
 2.Maximum lead thickness includes lead finish thickness, and minimum lead thickness is the minimum thickness of base material.
 3.If there is any question with packing specification or packing method, please contact your local CYStek sales office.

Material :

- Lead : 42 Alloy ; solder plating
- Mold Compound : Epoxy resin family, flammability solid burning class:UL94V-0

Important Notice:

- All rights are reserved. Reproduction in whole or in part is prohibited without the prior written approval of CYStek.
- CYStek reserves the right to make changes to its products without notice.
- CYStek **semiconductor products are not warranted to be suitable for use in Life-Support Applications, or systems.**
- CYStek assumes no liability for any consequence of customer product design, infringement of patents, or application assistance.