

Fast recovery high voltage diodes



Primary characteristics

Type	2CL70A	2CL71A
$I_{F(AV)}$	5mA	
V_{RRM}	6kV	8kV
I_{FSM}	0.5A	
I_{RM}	2 μ A	
V_{FM}	24V	30V
$T_J \text{ max.}$	120°C	

Features

- Supersmall size
- High reliability
- High speed switching

Applications

Rectification for high voltage power supply of color T.V、CRT display、V.T.R camera and Others

Mechanical data

- **Case:** Molded Plastic Body
- Epoxy meets UL 94V-0 flammability rating
- **Terminals:** Pure tin plated leads, solderable per J-STD-002 and JESD22-B102, E3 suffix for consumer grade, meet JESD201 class 1A whisker test.
- **Polarity:** Color band denotes cathode end

Maximum rating ($T_a=25^\circ\text{C}$ unless otherwise noted)

Parameter		Symbol	2CL70A	2CL71A	Unit
Repetitive peak reverse voltage		V _{RRM}	6	8	kV
Non-Repetitive peak reverse voltage		V _{RSM}	8	10	kV
Average forward current	60Hz half-sine wave, Resistance load, Ta=25°C	I _{F(AV)}	5		mA
Surge(Non-repetitive) forward current	60Hz half-sine wave, 1cycle, Ta=25°C	I _{FSM}	0.5		A
Peak forward voltage	I _{FM} =10mA	V _{FM}	24	30	V
Peak reverse current	V _{RM} =V _{RRM}	T _a =25°C	2		μA
		T _a =100°C	5		
Reverse recovery time	I _F =2mA, I _{RM} =4mA	t _{tr}	0.08		μs
Operating ambient temperature		T _a	-40 ~ +100		°C
Storage temperature		T _{stg}	-40 ~ +120		°C
Virtual junction temperature		T _(vj)	120		°C

Typical characteristics

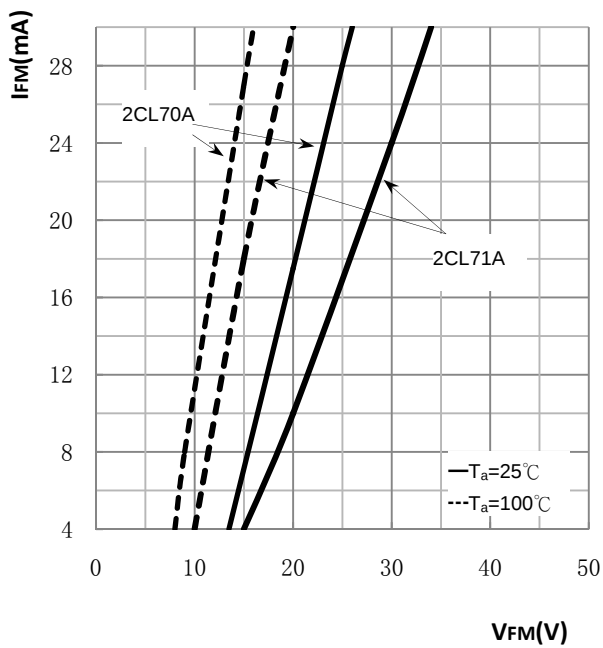


Figure 1. Forward characteristics

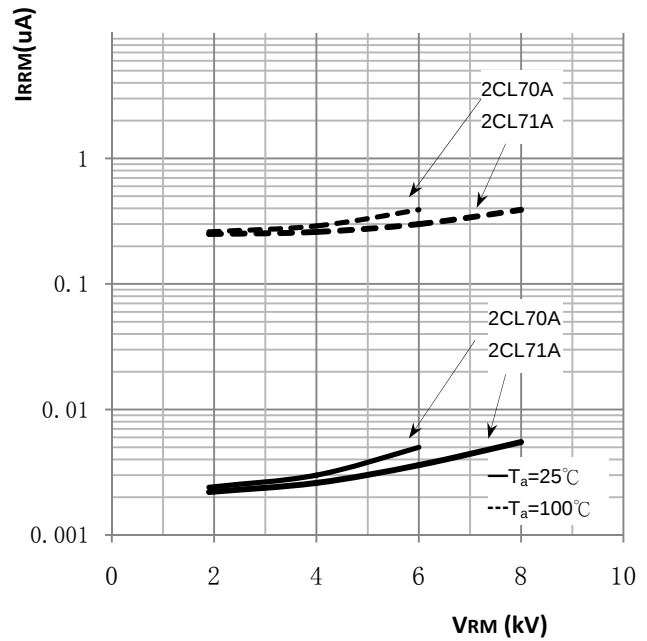


Figure 2. Reverse characteristics

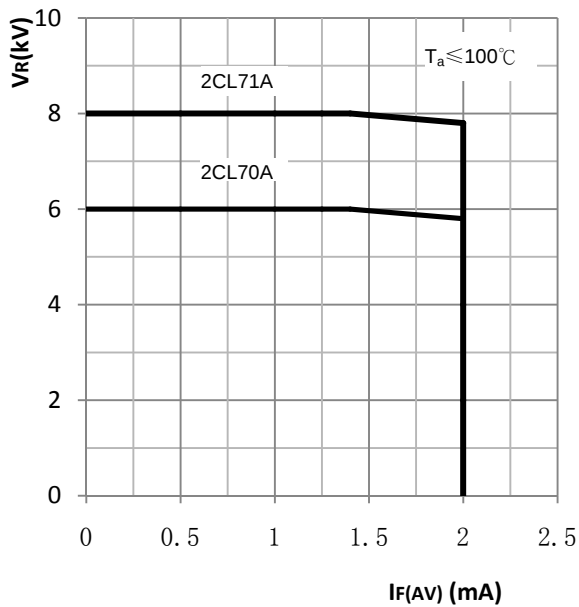


Figure 3. V_R - $I_{F(AV)}$ Curve

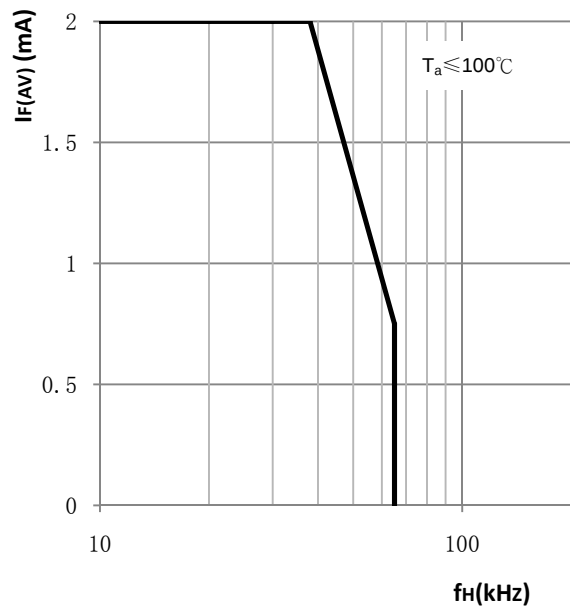
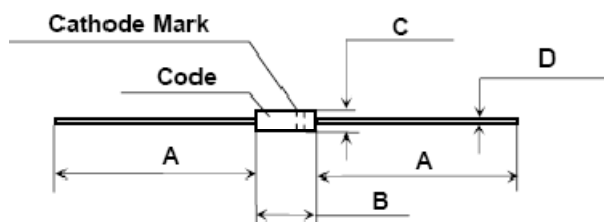


Figure 4. $I_{F(AV)}$ - f_H Curve

Package outline dimensions



Dim.	Inches		Millimeters	
	Min.	Max.	Min.	Max.
A	1.204		26	
B	0.248	0.264	6.3	6.7
C	0.094	0.106	2.3	2.7
D	0.019	0.021	0.47	0.53

Marking

Type	Code	Cathode Mark
2CL70A	T70A	⋈
2CL71A	T71A	⋈