

# High Voltage Rectifier Diode

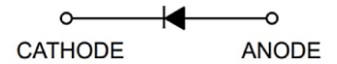
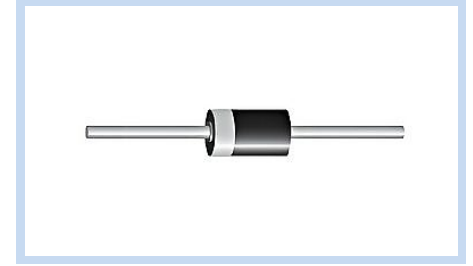
## 6KV~8KV DO-206

2CL70A, 2CL71A

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### FEATURE

- High Reverse Voltage Capability
- High Surge Current Resistance
- Fast Recovery Time for High-Frequency Operations
- Engineered for high-voltage rectification and protection



### APPLICATIONS

- Medical Diagnostic Systems: X-Ray, CT and MRI Scanners
- Industrial High-Voltage and High-Power Machinery
- DC HV Power Supply, SCR-Controller Rectifier
- HF AC-to-DC Rectifier, RF and High-Speed Switching

### ELECTRICAL CHARACTERISTICS

Parameter	Symbol	2CL70A	2CL71A	Unit
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	6	8	KV
Non-Repetitive Peak Reverse Voltage	$V_{RSM}$	8	10	KV
Maximum Average Forward Rectified Current	$I_{F(AV)}$	5		mA
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rate load	$I_{FSM}$	0.5		A
Maximum Forward Voltage at $I_{FM} = 10mA$	$V_{FM}$	24	30	V
Maximum Reverse Current at Rated DC Blocking Voltage	$I_R$	$T_A = 25^\circ C$	2	$\mu A$
		$T_A = 100^\circ C$	5	
Maximum Reverse Recovery Time	$t_{rr}$	0.08		$\mu s$
Typical Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	60		$^\circ C/W$
Operating Junction and Storage Temperature Range	$T_J, T_{STG}$	-40 ~ +120		$^\circ C$

Notes:

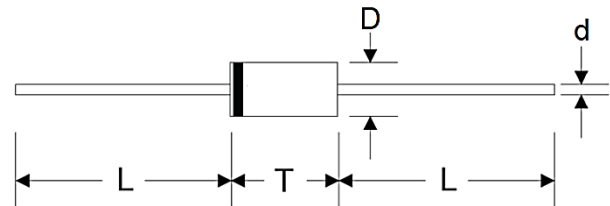
1. Ratings at 25°C ambient temperatures unless otherwise specified.
2. Reverse Recovery Time Test Condition:  $I_F = 2mA$ ,  $I_{RM} = 4mA$ ,  $I_{RR} = 1mA$ .

### DIMENSIONS

Item	Min.(mm)	Max. (mm)
D	2.3	2.7
d	0.47	0.53
L	26.0	-
T	6.3	6.7

Note:

1. Case: DO-206, Molded Plastic
2. Epoxy: UL Flammability Classification Rating 94V-0
3. Polarity: Color Band Denotes Cathode End



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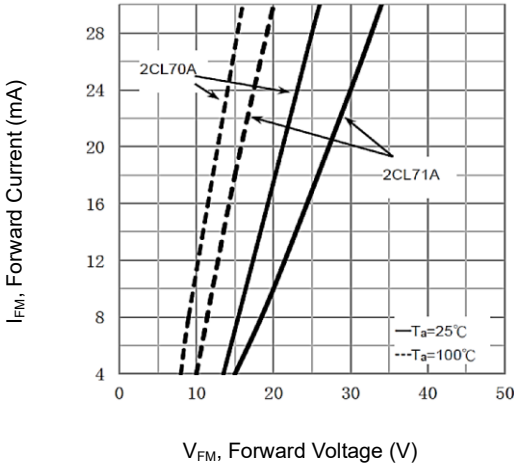
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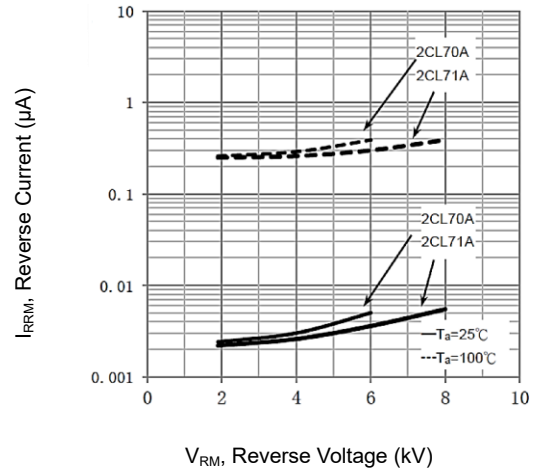
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### CHARACTERISTIC CURVES

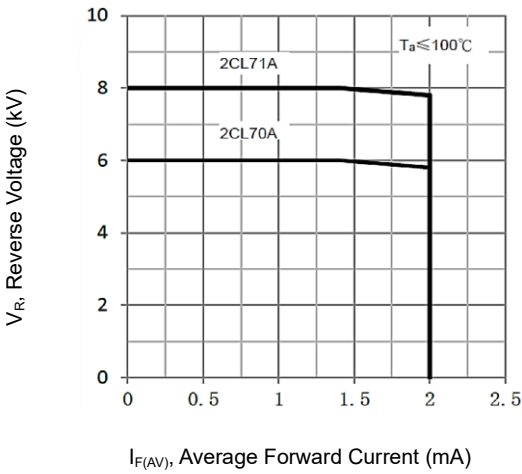
Typical Forward Characteristics



Typical Reverse Characteristics



Reverse Voltage vs. Average Forward Current



Average Forward Current vs. Frequency

