

High Voltage Rectifier Diode

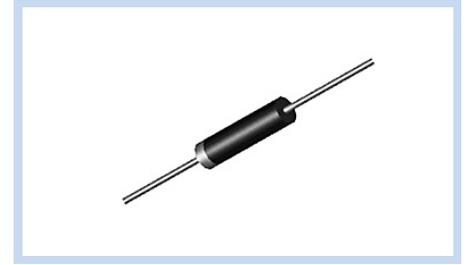
6KV~8KV DO-206

2CL70A, 2CL71A

MERITEK

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	μA
		$T_A = 100^{\circ}C$	5	
Maximum Reverse Recovery Time	t_{rr}	0.08		μs
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:

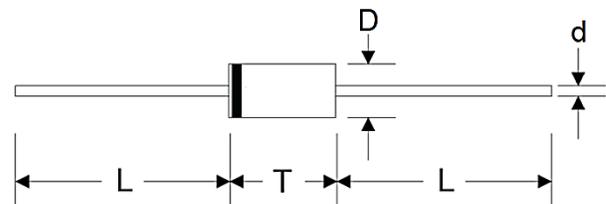
1. Ratings at 25°C ambient temperatures unless otherwise specified.
2. Reverse Recovery Time Test Condition: $I_F = 2mA$, $I_{RM} = 4mA$, $I_{RR} = 1mA$.

DIMENSIONS

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

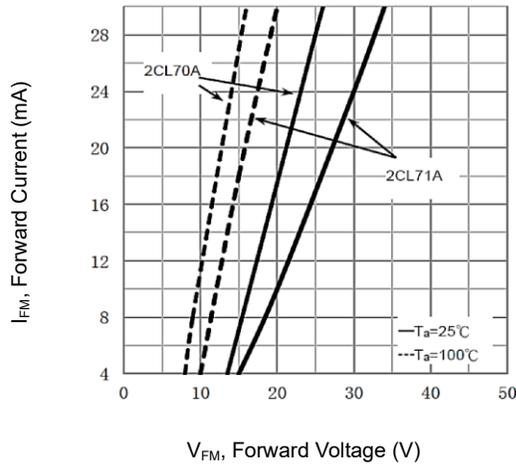
Note:

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

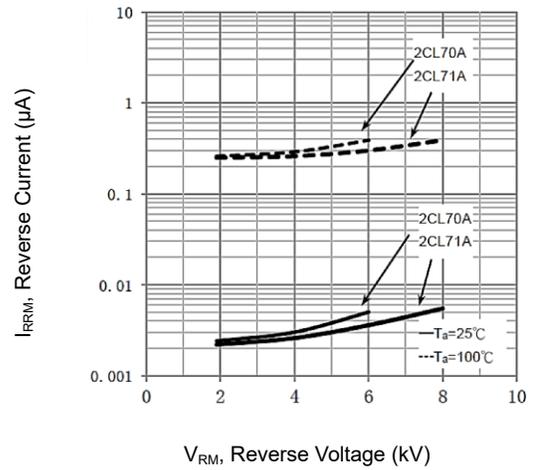


CHARACTERISTIC CURVES

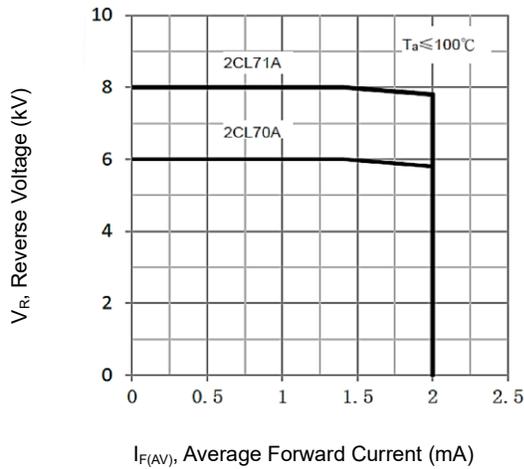
Typical Forward Characteristics



Typical Reverse Characteristics



Reverse Voltage vs. Average Forward Current



Average Forward Current vs. Frequency

