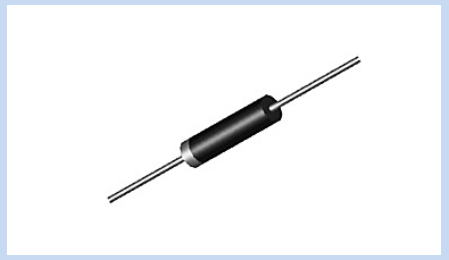
High Voltage Rectifier Diode
6KV~8KV DO-306

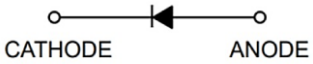
2CL70, 2CL71

MERITEK

FEATURE

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





RoHS

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

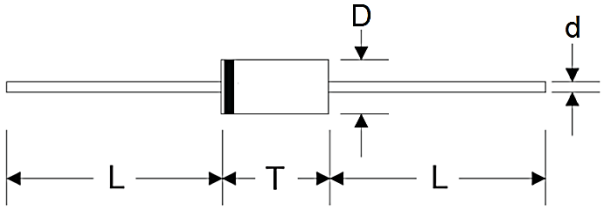
ELECTRICAL CHATACTERISTICS

Parameter		Symbol	2CL70	2CL71	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	T_A=25°C	I_R	2		μA
	T_A=100°C		5		
Maximum Reverse Recovery Time		t_{rr}	0.08		μs
Typical Thermal Resistance from Junction to Ambient		$R_{\theta JA}$	60		°C/W
Operating Junction and Storage Temperature Range		T_J, T_{STG}	-40 ~ +120		˚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

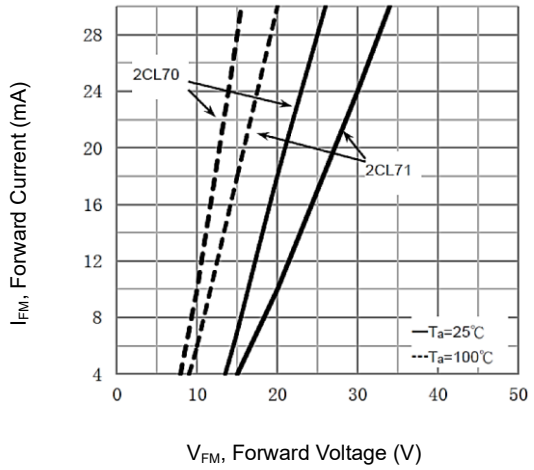
Item	Min.(mm)	Max. (mm)
D	2.8	3.2
d	0.57	0.63
L	26.0	-
T	7.8	8.2



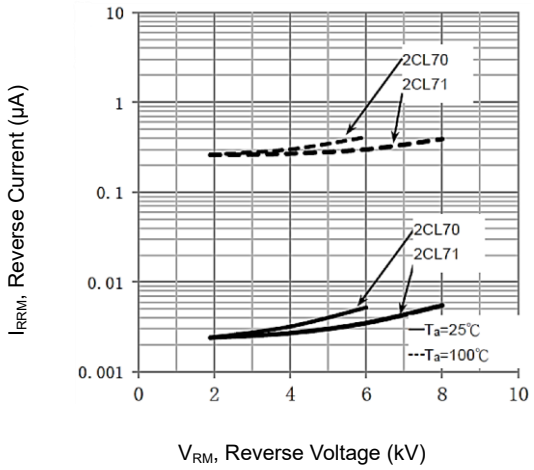
Note:
1. Case: DO-306, Molded Plastic
2. Epoxy: UL Flammability Classification Rating 94V-0
3. Polarity: Color Band Denotes Cathode End

CHARACTERISTIC CURVES

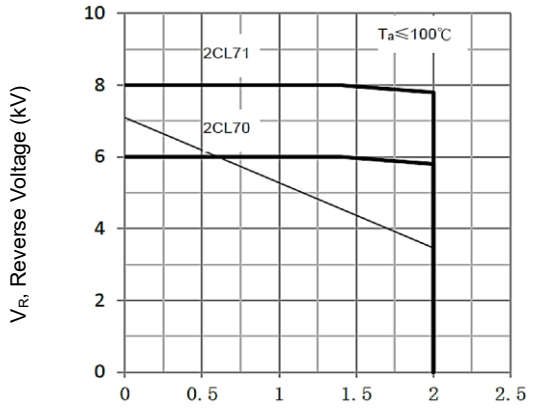
Typical Forward Characteristics



Typical Reverse Characteristics



Reverse Voltage vs. Average Forward Current



Average Forward Current vs. Frequency