

# High Voltage Rectifier Diode

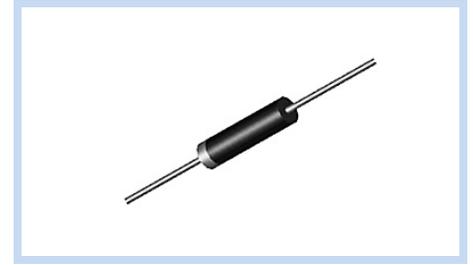
## 4KV~16KV DO-722

BY4~BY16

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

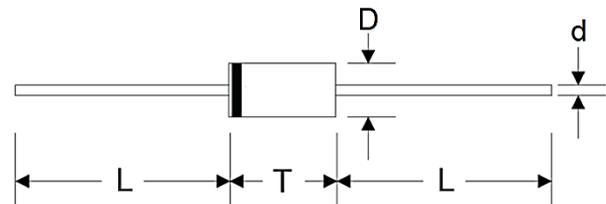
Parameter	Symbol	BY4	BY6	BY8	BY12	BY16	Unit
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	4	6	8	12	16	KV
Maximum Average Forward Rectified Current	$I_{F(AV)}$	1000	1000	500	500	300	mA
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rate load	$I_{FSM}$	100					A
Maximum Forward Voltage	$I_{FM}=450mA$	4	6	8	10	-	V
	$I_{FM}=300mA$	-	-	-	-	15	
Maximum Reverse Current at Rated DC Blocking Voltage	$T_J=25^{\circ}C$	1					$\mu A$
	$T_J=100^{\circ}C$	25					
Typical Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	25					$^{\circ}C/W$
Operating Junction and Storage Temperature Range	$T_J, T_{STG}$	-50 ~ +150					$^{\circ}C$

Notes:

1. Ratings at 25°C ambient temperatures unless otherwise specified.
2. Cooling requirement: Cathode terminal is fastened to radiating fin that size is more than 50mm\*50mm\*0.6mm wind-cooled velocity is more than 0.5m/s.

### DIMENSIONS

Item	Min.(mm)	Max. (mm)
D	7.0	8.0
d	1.17	1.23
L	22.0	-
T	21.5	22.5



Note:

1. Case: DO-722, Molded Plastic
2. Epoxy: UL Flammability Classification Rating 94V-0
3. Polarity: Color Band Denotes Cathode End

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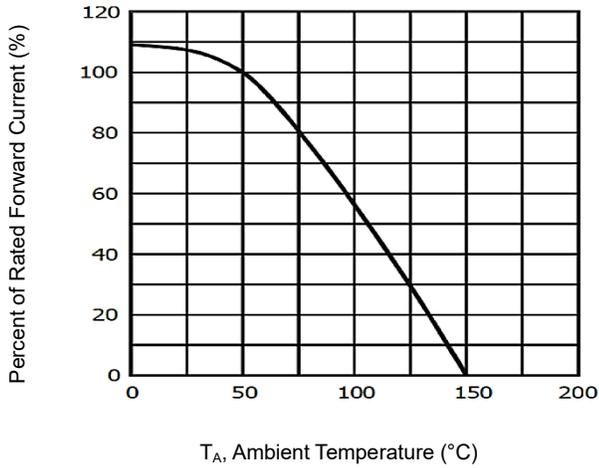
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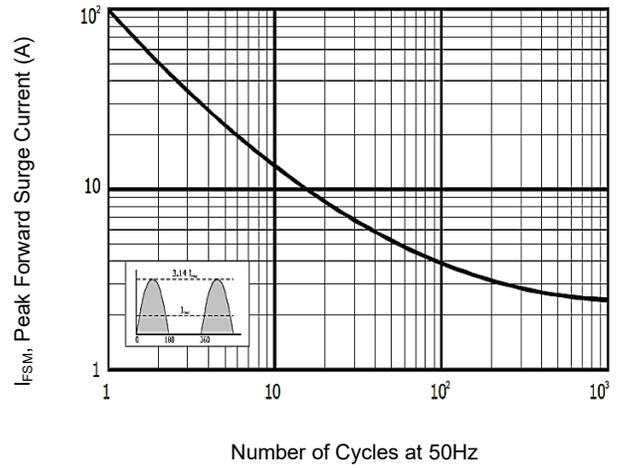
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### CHARACTERISTIC CURVES

Typical Forward Current Derating Curve



Maximum Non-repetitive Forward Surge Current



Typical Forward Characteristics

