



# BYV27 SERIES

**PRV : 50 - 200 Volts**  
**Io : 2.0 Amperes**

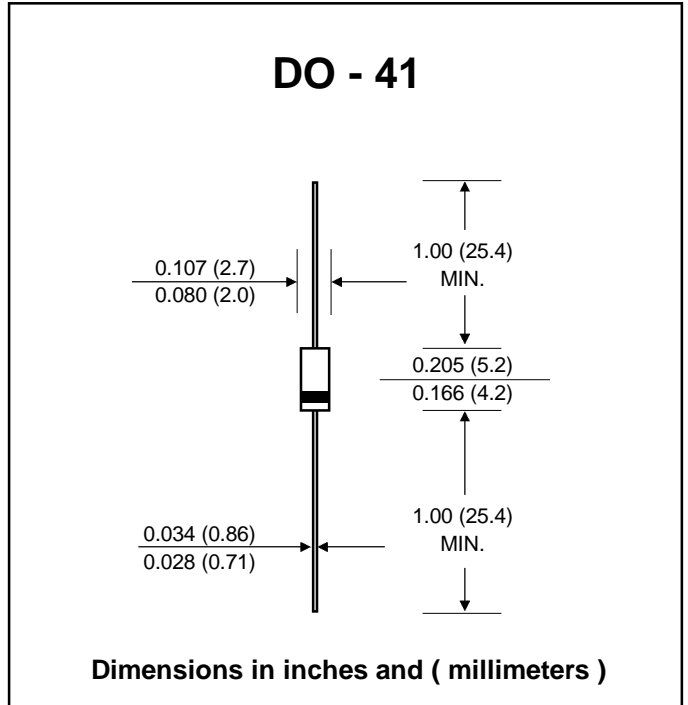
**FEATURES :**

- \* High current capability
- \* High surge current capability
- \* High reliability
- \* Low reverse current
- \* Low forward voltage drop
- \* Very fast recovery
- \* **Pb / RoHS Free**

**MECHANICAL DATA :**

- \* Case : DO-41 Molded plastic
- \* Epoxy : UL94V-O rate flame retardant
- \* Lead : Axial lead solderable per MIL-STD-202, method 208 guaranteed
- \* Polarity : Color band denotes cathode end
- \* Mounting position : Any
- \* Weight : 0.335 gram

# EPITAXIAL AVALANCHE DIODES



## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specified.  
 Single phase, half wave, 60 Hz, resistive or inductive load.  
 For capacitive load, derate current by 20%.

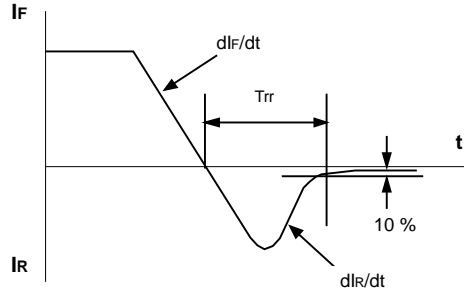
RATING	SYMBOL	BYV27-50	BYV27-100	BYV27-150	BYV27-200	UNIT
Maximum Repetitive Peak Reverse Voltage	VRRM	50	100	150	200	V
Maximum Continuous Reverse Voltage	VR	50	100	150	200	V
Min. Reverse Avalanche Breakdown Voltage @ IR = 0.1 mA	V(BR)R-min.	55	110	165	220	V
Maximum Average Forward Current Ttp = 85 °C (Note 1)	IF(AV)	2.0				A
Maximum Non-Repetitive Peak Forward Surge Current	IFSM	50				A
Maximum Repetitive Peak Forward Current	IFRM	15				A
Maximum Forward Voltage at IF = 3.0 Amps. (Note 2)	VF	1.07				V
Maximum Reverse Current at VR = VRRM max , Tj = 25 °C	IR	1.0				µA
Maximum Reverse Current at VR = VRRM max , Tj = 165 °C	IR(H)	150				µA
Maximum Reverse Recovery Time (Note 3)	Trr	25				ns
Thermal Resistance - Junction to tie-point (Note 1)	Rth j-tp	46				K / W
Junction Temperature Range	TJ	- 65 to + 175				°C
Storage Temperature Range	TSTG	- 65 to + 175				°C

**Notes :**

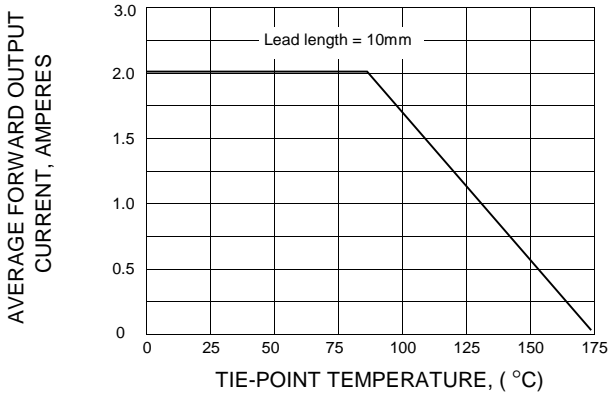
- (1) Lead Length 10 mm.
- (2) Measured under pulse conditions to avoid excessive dissipation.
- (3) Switched from IF = 0.5A to IR = 1A.

**RATING AND CHARACTERISTIC CURVES ( BYV27 SERIES )**

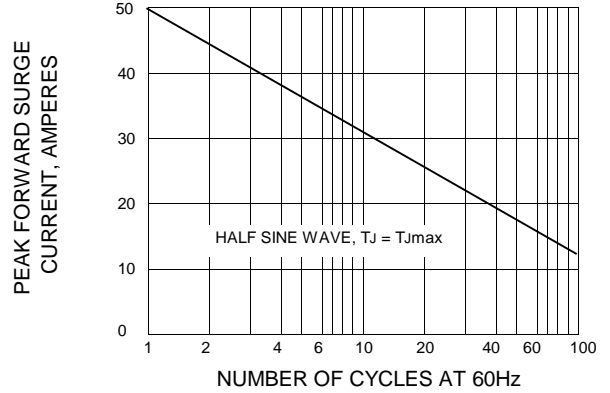
**FIG.1 - REVERSE RECOVERY TIME CHARACTERISTIC**



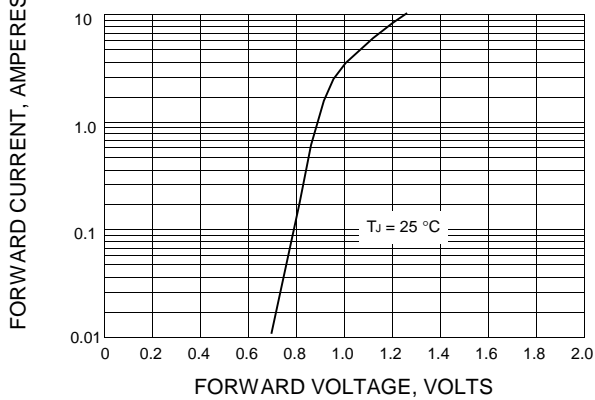
**FIG.2 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT**



**FIG.3 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT**



**FIG.4 - TYPICAL FORWARD CHARACTERISTICS**



**FIG.5 - TYPICAL REVERSE CHARACTERISTICS**

