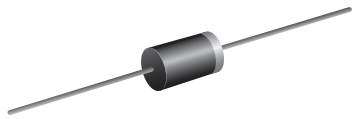
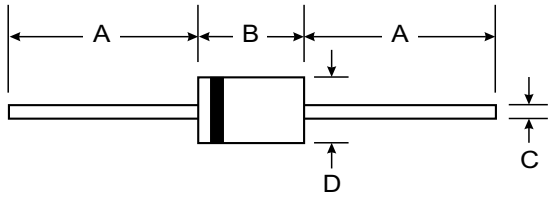
BY296 - BY299

FAST RECOVERY RECTIFIER DIODES

VOLTAGE RANGE: 100 - 800V

CURRENT: 2.0 A





DO-201AD		
Dim	**Min**	**Max**
A	25.40	—
B	7.20	9.50
C	1.20	1.30
D	4.80	5.30
All Dimensions in mm		

Features

- High current capability
- High surge current capability
- High reliability
- Low reverse current
- Low forward voltage drop
- Fast switching for high efficiency

Mechanical Data

- Case : DO-201AD 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: 1.20 grams (approx.)

RoHS COMPLIANT

Maximum Ratings and Electrical Characteristics

Ratings at 25° C ambient temperature unless otherwise specified.

Characteristic	SYMBOL	BY296	BY297	BY298	BY299	UNIT
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	100	200	400	800	V
Maximum RMS Voltage	V_{RMS}	70	140	280	560	V
Maximum DC Blocking Voltage	V_{DC}	100	200	400	800	V
Maximum Average Forward Current 0.375"(9.5mm) Lead Length Ta = 50 °C	$I_{F(AV)}$	2.0				A
Peak Forward Surge Current, 8.3ms Single half sine wave Superimposed on rated load (JEDEC Method)	I_{FSM}	70				A
Maximum Peak Forward Voltage at I_F = 2.0 Amps.	V_F	1.3				V
Maximum DC Reverse Current Ta = 25 °C	I_R	10				μA
at Rated DC Blocking Voltage Ta = 100 °C	$I_{R(H)}$	500				μA
Maximum Reverse Recovery Time (Note 1)	Trr	250				ns
Typical Junction Capacitance (Note 2)	C_J	28				pf
Junction Temperature Range	T_J	- 50 to + 125				°C
Storage Temperature Range	T_{STG}	- 50 to + 150				°C

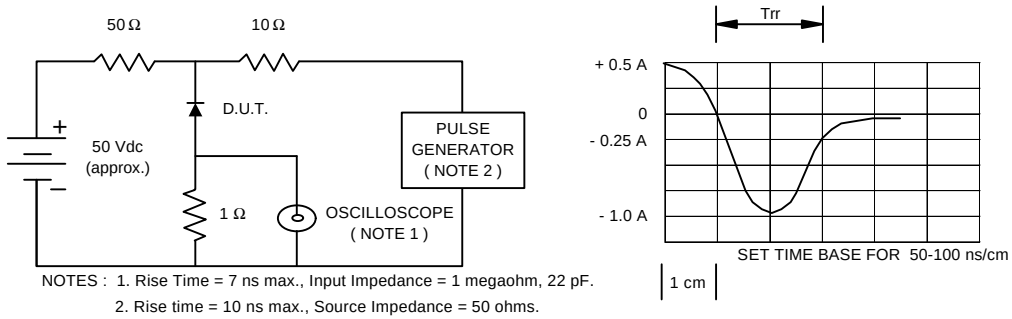
Notes :

(1) Reverse Recovery Test Conditions : I_F = 0.5 A, I_R = 1.0 A, Irr = 0.25 A.

(2) Measured at 1.0 MHz and applied reverse voltage of 4.0 V_{DC}

RATING AND CHARACTERISTIC CURVES (BY296 - BY299)

FIG.1 - REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM



NOTES : 1. Rise Time = 7 ns max., Input Impedance = 1 megaohm, 22 pF.
2. Rise time = 10 ns max., Source Impedance = 50 ohms.
3. All Resistors = Non-inductive Types.

FIG.2 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

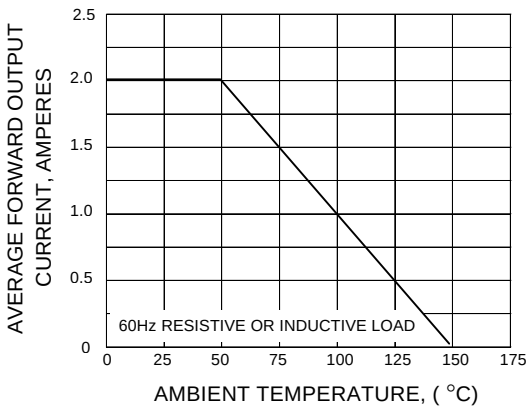


FIG.3 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

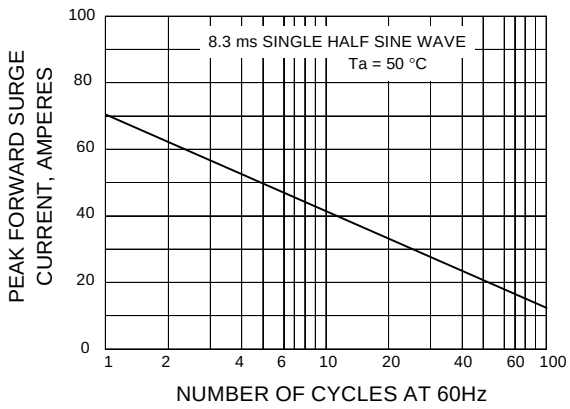


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

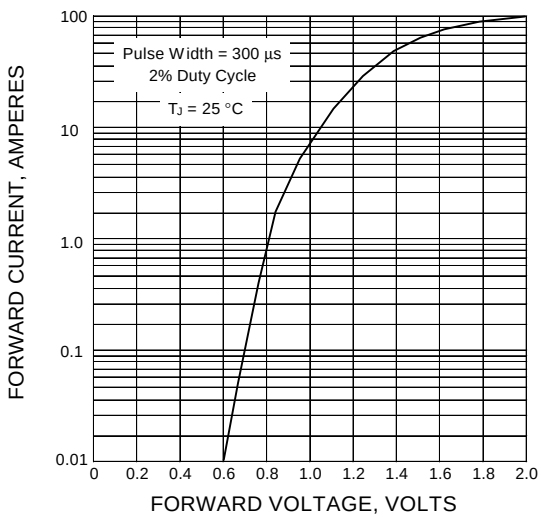


FIG.5 - TYPICAL REVERSE CHARACTERISTICS