



BY396 THRU BY399

100V-800V

3.0A

	DO-201AD
FEATURES	
<ul style="list-style-type: none"> ● High surge current capability ● Plastic package has Underwriters Laboratory Flammability Classification 94V-0 ● Void-free molded plastic package ● 3.0 Ampere operation at $T_A=55$ °C with no thermal runaway ● Fast switching for high efficiency ● Exceeds environmental standards of MIL-S-19500/228 	
MECHANICAL DATA	Dimensions in inches and (millimeters)
<p>Case: JEDEC DO-201AD molded plastic</p> <p>Terminals: Plated Axial leads, solderable per MIL-STD-750, Method 2026</p> <p>Polarity: Color Band denotes end</p> <p>Mounting Position: Any</p> <p>Weight: .04 ounce, 1.1gram</p>	

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.

Resistive or inductive load.

	SYMBOLS	BY396	BY397	BY398	BY399	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	100	200	400	800	Volts
Maximum RMS Voltage	V_{RMS}	70	140	280	560	Volts
Maximum DC Blocking Voltage	V_{DC}	100	200	400	800	Volts
Maximum Average Forward Rectified Current .375"(9.5mm) lead lengths at $T_A=50$ °C	$I_{(AV)}$	3.0				Amps
Peak Forward Surge Current 10ms single half sine-wave superimposed on rated load at $T_A=25$ °C	I_{FSM}	100.0				Amps
Maximum Repetitive Peak Forward Surge (Note 1)	I_{FRM}	10.0				Amps
Maximum Instantaneous Forward Voltage at 3.0A	V_F	1.30				Volts
Maximum DC Reverse Current $T_A=25$ °C At Rated DC Blocking Voltage $T_A=100$ °C	I_R	10.0 500				µg A
Maximum Reverse Recovery Time (Note 3) $T_J=25$ °C	T_{RR}	150				ns
Typical Junction Capacitance (Note 2)	C_J	60				pf
Typical Thermal Resistance (Note 4)	$R_{\theta KJA}$	22.0				°C/W
Operating Temperature Range	T_J	-50 to +125				°C
Storage Temperature Range	T_{STG}	-50 to +150				°C

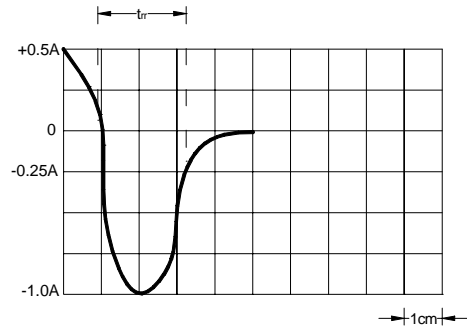
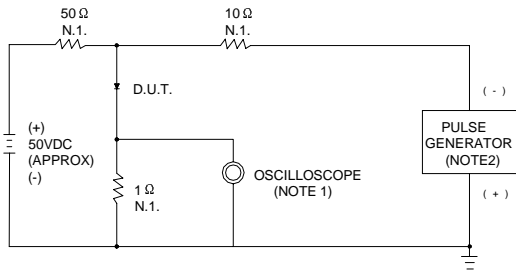
NOTES:

1. Repetitive Peak Forward Surge Current at $f < 15$ HKz.
2. Measured at 1 MHz. And applied reverse voltage of 4.0 volts.



3. Reverse Recovery Test Conditions; $I_F=0.5A, I_R=1.0A, I_{rr}=0.25A$.
4. Thermal Resistance from Junction to Ambient at .375" lead lengths with both leads to heat sink.

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



NOTES: 1. RISE TIME = 7ns MAX. INPUT IMPEDANCE = 1MΩ. 22pF
 2. RISE TIME = 10ns MAX. SOURCE IMPEDANCE = 50

SET TIME BASE FOR 50/100 ns /cm

FIG.2 – TYPICAL FORWARD CHARACTERISTIC

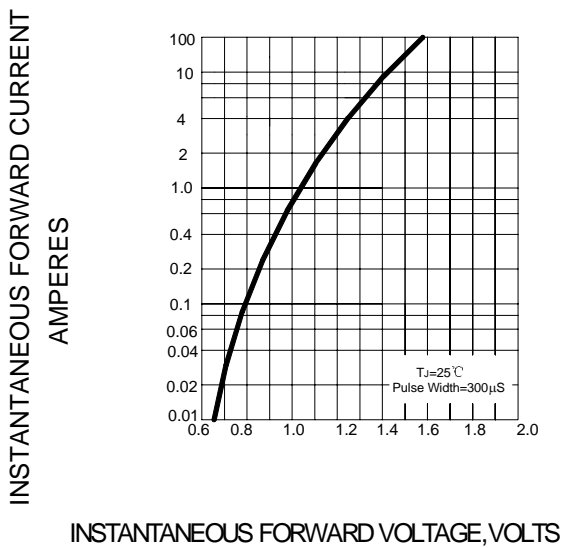


FIG.3 – FORWARD DERATING CURVE

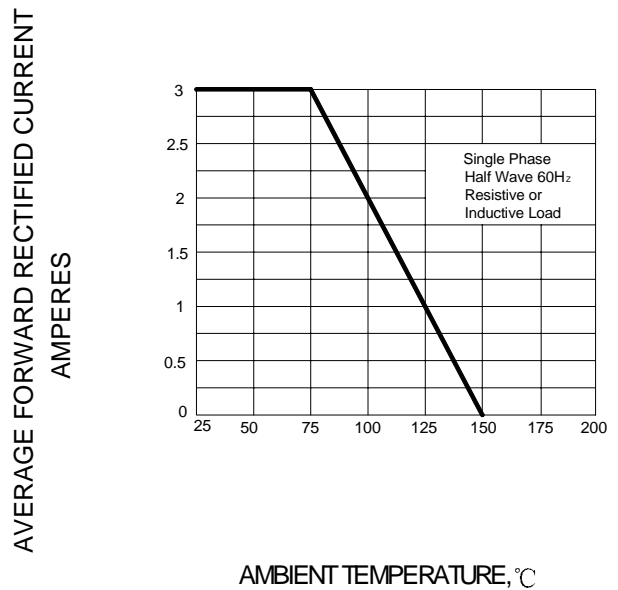


FIG.4 – TYPICAL JUNCTION CAPACITANCE

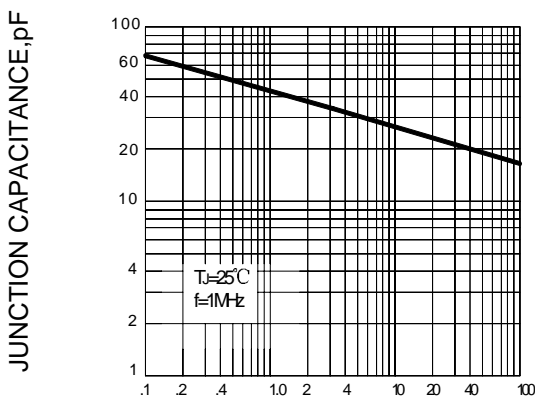


FIG.5 – PEAK FORWARD SURGE CURRENT

