New Jersey Semi-Conductor Products, Inc.

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BYW98-50S ~ BYW98-200S

SUPER FAST RECOVERY DIODES

PRV : 50 ~ 200 Volts
Io : 3 Amperes

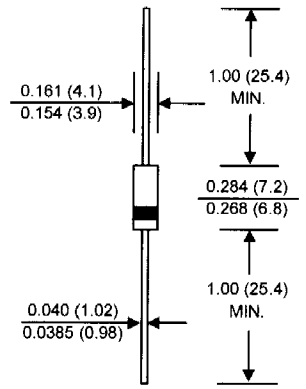
FEATURES :

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

MECHANICAL DATA :

* Case : D2A 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 : 0.645 gram

D2A



Dimensions in inches and (millimeters)

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	BYW 98-50S	BYW 98-100S	BYW 98-150S	BYW 98-200S	UNIT
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	150	200	Volts
Maximum Average Forward Current	$I_{F(AV)}$	3.0				Amps.
Maximum Peak Forward Surge Current	I_{FSM}	70				Amps.
Maximum Forward Voltage at I_F = 3 Amps. ; T_J = 100 °C	V_F	0.85				Volt
Maximum Reverse Current at V_{RRM} , T_J = 100 °C	I_R	1.0				mA
Maximum Reverse Recovery Time , T_J = 25 °C (1)	Trr	35				ns
Junction Temperature Range	T_J	- 65 to + 150				°C
Storage Temperature Range	T_{STG}	- 65 to + 150				°C

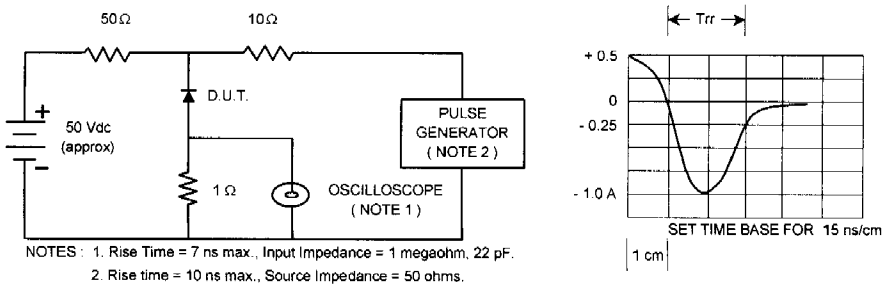
NOTE :

(1) Reverse Recovery Test Conditons : I_F = 0.5A , I_R = 1A , Irr = 0.25A

Quality Semi-Conductors

RATING AND CHARACTERISTIC CURVES (BYW98-50S ~ BYW98-200S)

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

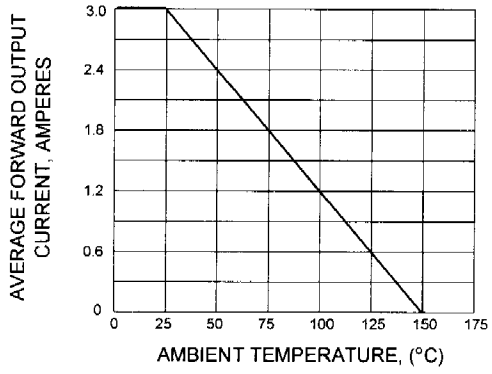


FIG.3 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

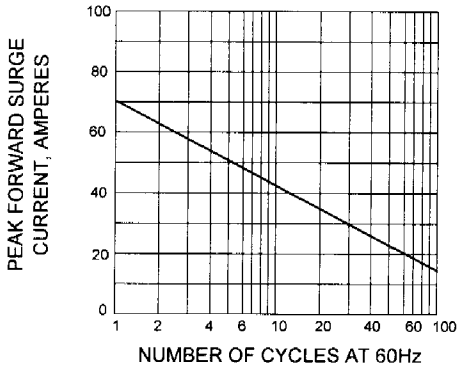


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

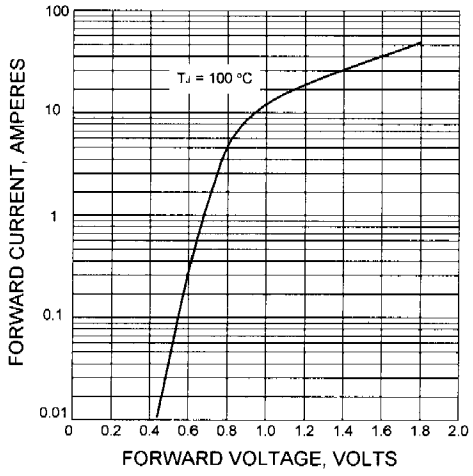


FIG.5 - TYPICAL REVERSE CHARACTERISTICS