

SUPER FAST RECTIFIERS

VOLTAGE RANGE: 50 --- 600 V
CURRENT: 3.5, 3.0 A

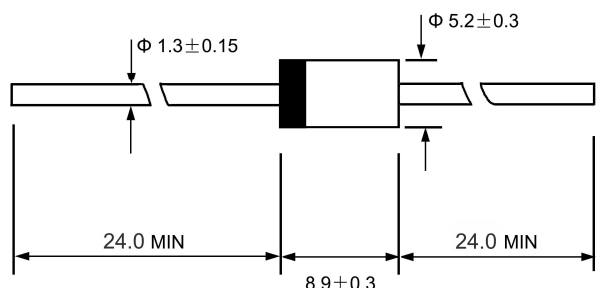
FEATURES

- ◇ Low cost
- ◇ Diffused junction
- ◇ Low leakage
- ◇ Low forward voltage drop
- ◇ High current capability
- ◇ Easily cleaned with alcohol, Isopropanol and similar solvents

MECHANICAL DATA

- ◇ Case: JEDEC DO-27, molded plastic
- ◇ Terminals: Axial lead, solderable per MIL-STD-202, Method 208
- ◇ Polarity: Color band denotes cathode
- ◇ Weight: 0.041 ounces, 1.15 grams
- ◇ Mounting position: Any

DO - 27



Dimensions in millimeters

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 50 Hz, resistive or inductive load. For capacitive load, derate by 20%.

		BYV28 -50	BYV28 -100	BYV28 -150	BYV28 -200	BYV28 -300	BYV28 -400	BYV28 -600	UNITS
Maximum recurrent peak reverse voltage	V _{RRM}	50	100	150	200	300	400	600	V
Maximum RMS voltage	V _{RMS}	35	70	105	140	210	280	420	V
Maximum DC blocking voltage	V _{DC}	50	100	150	200	300	400	600	V
Maximum average forw ard rectified current 9.5mm lead length, @T _A =75°C	I _{F(AV)}	3.5							A
Peak forw ard surge current 10ms single half-sine-w ave superimposed on rated load @T _J =125°C	I _{FSM}	90.0							A
Maximum instantaneous forw ard voltage @ I _F =I _{F(AV)}	V _F	1.02				1.05		1.25	V
Maximum reverse current @T _A =25°C at rated DC blocking voltage @T _A =100°C	I _R	5.0 100.0							μ A
Maximum reverse recovery time (Note1)	t _{rr}	25				50			ns
Typical junction capacitance (Note2)	C _J	100							pF
Typical thermal resistance (Note3)	R _{θJA}	75							°C/W
Operating junction temperature range	T _J	- 55 ----- + 150							°C
Storage temperature range	T _{STG}	- 55 ----- + 150							°C

NOTE: 1. Measured with $I_F=0.5\text{A}$, $I_R=1\text{A}$, $t_{rr}=0.25\text{A}$.

2. Measured at 1.0MHz and applied reverse voltage of 4.1V DC.

3. Thermal resistance from junction to ambient.

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

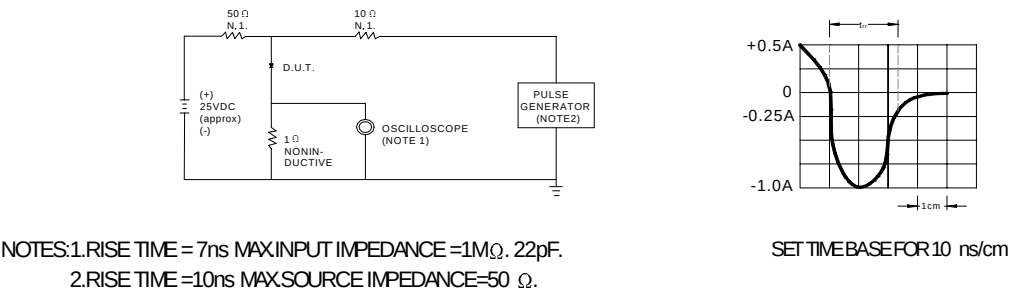


FIG.2 – TYPICAL FORWARD CHARACTERISTIC

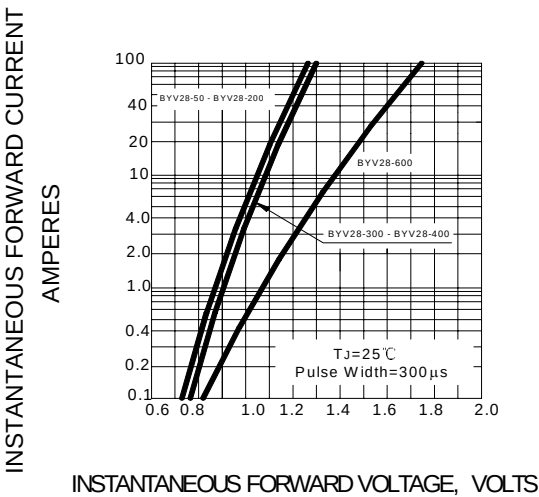


FIG.3 – FORWARD DERATING CURVE

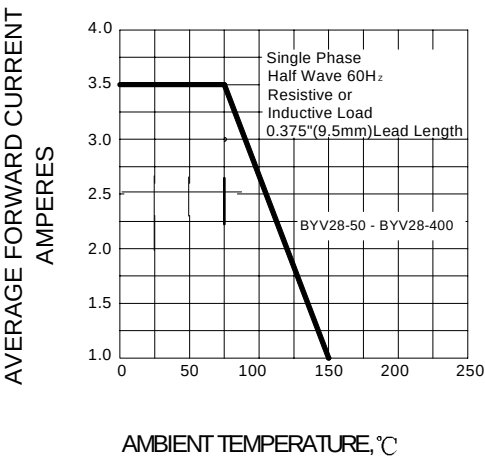


FIG.4 – TYPICAL JUNCTION CAPACITANCE

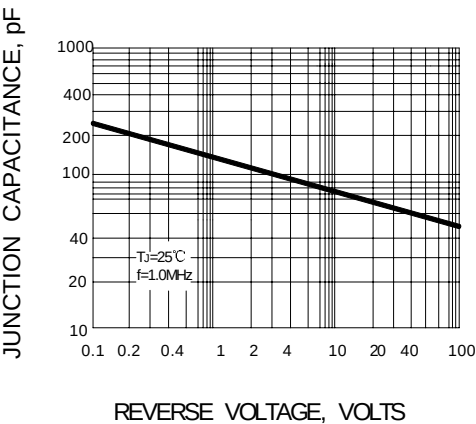


FIG.5- PEAK FORWARD SURGE CURRENT

