

FAST RECOVERY RECTIFIERS

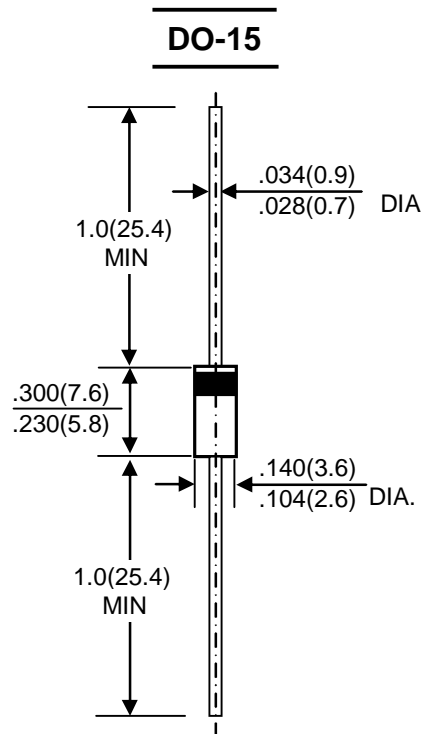
REVERSE VOLTAGE - 100 to 800 Volts
FORWARD CURRENT - 2.0 Amperes

FEATURES

- Fast switching for high efficiency
- Low cost
- Diffused junction
- Low reverse leakage current
- Low forward voltage drop
- High current capability
- The plastic material carries UL recognition 94V-0

MECHANICAL DATA

- Case: JEDEC DO-15 molded plastic
- Polarity: Color band denotes cathode
- Weight: 0.015 ounces , 0.4 grams
- Mounting position: Any



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave ,60Hz, resistive or inductive load.

For capacitive load, derate current by 20%

CHARACTERISTICS	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 Rectified Current @ T _A =50 °C	I _(AV)	2.0				A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load(JEDEC Method)	I _{FSM}	70				A
Peak Forward Voltage at 2.0A DC	V _F	1.3				V
Maximum DC Reverse Current @ T _J =25°C at Rated DC Blocking Voltage @ T _J =100°C	I _R	5.0 100				μA
Maximum Reverse Recovery Time(Note 1)	T _{RR}	150			500	nS
Typical Junction Capacitance (Note2)	C _J	30			20	pF
Typical Thermal Resistance (Note3)	R _{θJA}	25				°C/W
Operating Temperature Range	T _J	-55 to +125				°C
Storage Temperature Range	T _{STG}	-55 to +150				°C

NOTES: 1. Measured with I_F=0.5A, I_R=1A, I_{RR}=0.25A

2. Measured at 1.0 MHz and applied reverse voltage of 4.0V DC

3. Thermal resistance junction of ambient.

FIG. 1 – FORWARD CURRENT DERATING CURVE

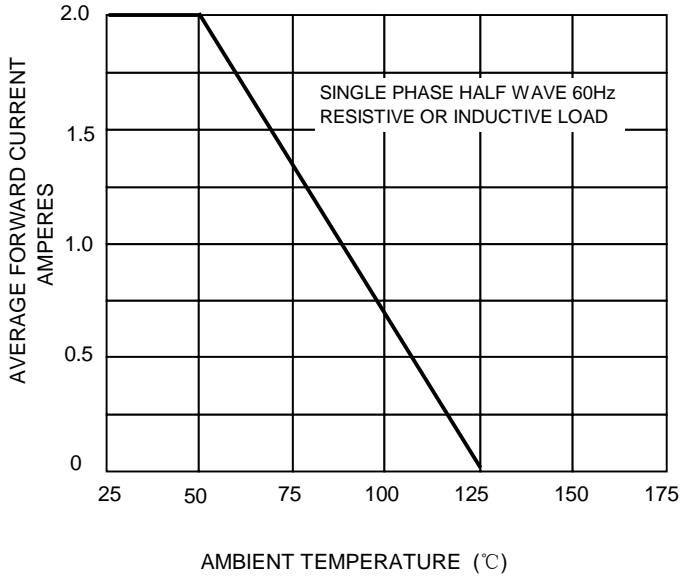


FIG. 2 – MAXIMUM NON-REPETITIVE SURGE CURRENT

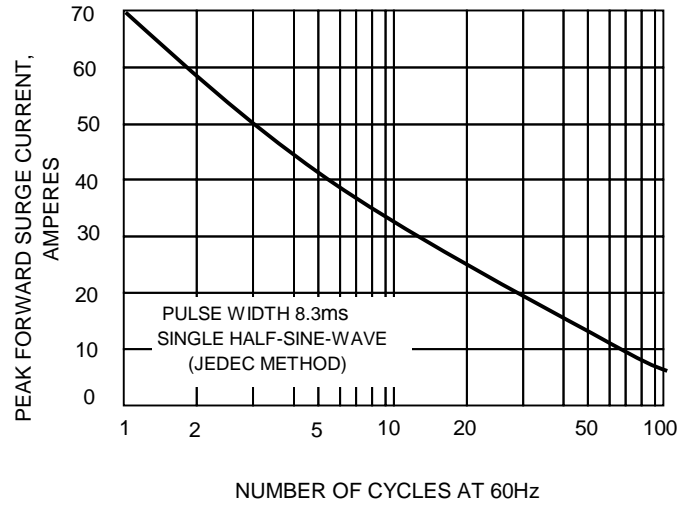


FIG.3 – TYPICAL JUNCTION CAPACITANCE

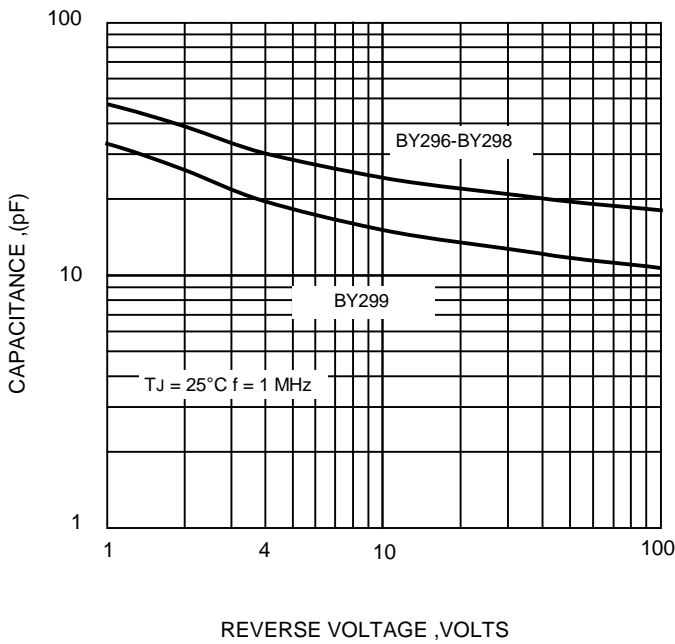


FIG.4-TYPICAL FORWARD CHARACTERISTICS

