

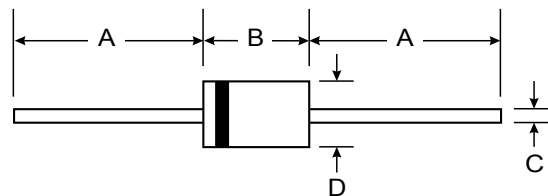
SUPER FAST RECOVERY RECTIFIER DIODES

ER500 - ER506

Vishaymas General Semiconductor

Features

- Diffused Junction
- Low Forward Voltage Drop
- High Current Capability
- High Reliability
- High Surge Current Capability



Mechanical Data

Case: DO-27 Molded Plastic

Terminals: Plated Leads Solderable
per MIL-STD-202, Method 208

Polarity: Cathode Band

Weight: 1.2 grams (approx.)

Mounting Position: Any

Marking: Type Number

DO-27		
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		

Maximum Ratings and Electrical Characteristics

@TA=25°C unless otherwise specified Single Phase, half wave, 60Hz,
resistive or inductive load. For capacitive load, derate current by 20%.

Characteristic	Symbol	ER500	ER501	ER501A	ER502	ER503	ER504	ER506	Unit
Maximum Recurrent Peak Reverse Voltage	VRRM	50	100	150	200	300	400	600	Volts
Maximum RMS Voltage	VRMS	35	70	105	140	210	280	420	Volts
Maximum DC Blocking Voltage	VDC	50	100	150	200	300	400	600	Volts
Maximum Average Forward Current 0.375"(9.5mm) Lead Length Ta = 55 °C	IF(AV)	5.0							Amps.
Peak Forward Surge Current, 8.3ms Single half sine wave Superimposed on rated load (JEDEC Method)	IFSM	135							Amps.
Maximum Peak Forward Voltage at IF = 5.0 A.	VF	0.95					1.4		Volts
Maximum DC Reverse Current Ta = 25 °C at Rated DC Blocking Voltage Ta = 100 °C	IR	5							μA
	IR(H)	50							μA
Maximum Reverse Recovery Time (Note 1)	Trr	35							ns
Typical Junction Capacitance (Note 2)	CJ	50							pf
Junction Temperature Range	TJ	- 65 to + 150							°C
Storage Temperature Range	TSTG	- 65 to + 150							°C

Notes :

- (1) Reverse Recovery Test Conditions : IF = 0.5 A, IR = 1.0 A, Irr = 0.25 A.
- (2) Measured at 1.0 MHz and applied reverse voltage of 4.0 Vdc

RATING AND CHARACTERISTIC CURVES

Vishaymas General Semiconductor

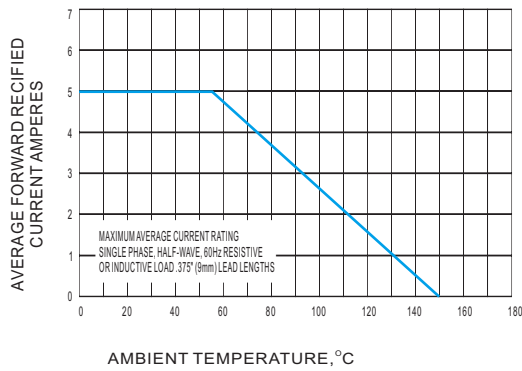


FIG.1 MAXIMUM AVERAGE FORWARD CURRENT RATING

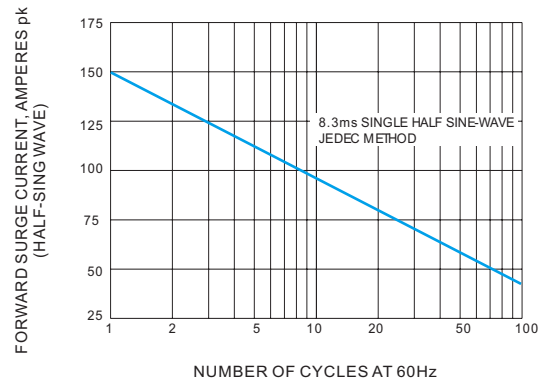


FIG.2 MAXIMUM NON-REPEITIVE SURGE CURRENT

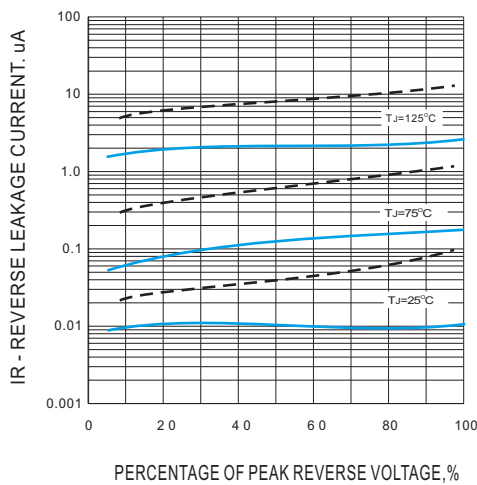


FIG.3 TYPICAL REVERSE CHARACTERISTICS

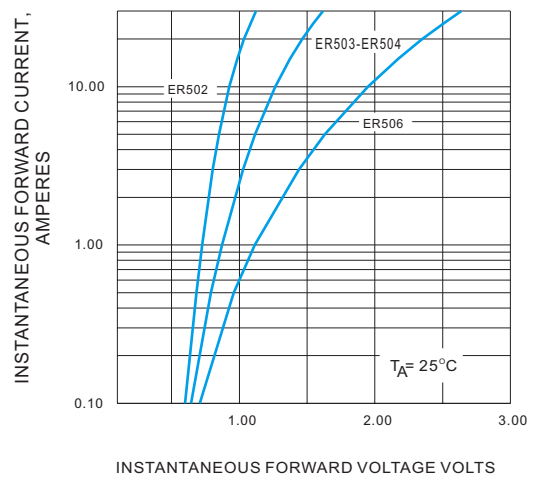


FIG.4 TYPICAL JUNCTION CAPACITANCE

