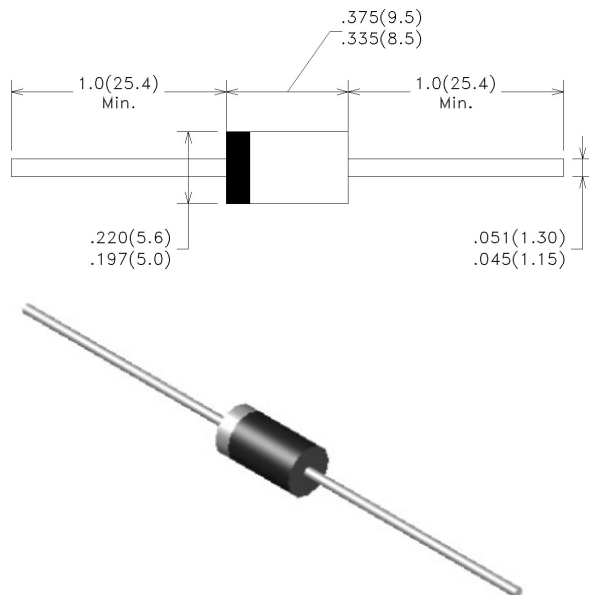


Package Outline Dimensions in mm (inches)

DO27



Reverse Voltage - 200~600 V

Forward Current - 5.0 A

Features

- Glass Passivated Die
- Superfast Recovery times for high efficiency
- Low leakage current
- High forward surge capability
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260 °C
- Compliant to RoHS Directive 2002/95/EC and in accordance to WEEE 2002/96/EC

Typical Applications

- For use in switching power Supplies.

Mechanical Data

- Case:DO27 Plastic Package
- Polarity:Color band denotes cathode end

Maximum ratings

Ratings at TA=25°C (unless otherwise specified)

Parameter	Symbol	ER502	ER504	ER506	Unit
Maximum recurrent peak reverse voltage	V _{RRM}	200	400	600	V
Maximum RMS voltage	V _{RMS}	140	280	420	V
Maximum DC blocking voltage	V _{DC}	200	400	600	V
Maximum average forward rectified current (Note1)	I _{F(AV)}	5.0			A
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load	I _{FSM}	150			A
Storage temperature range	T _S	-55 to 150			°C
Operating Junction temperature range	T _J	-55 to 150			°C
Thermal Resistance (Note1)	R _{thJA}	25			°C /W

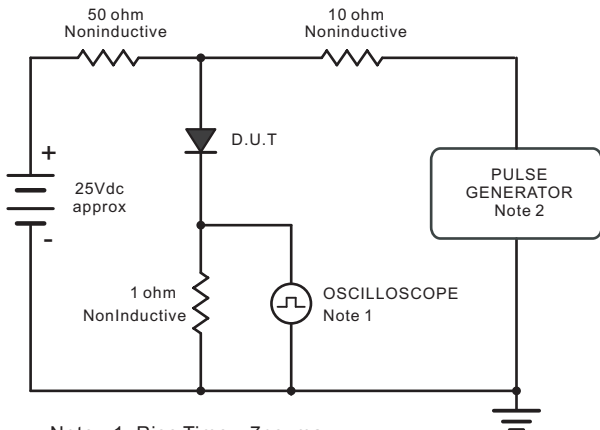
Note1: Vertical P.C.B. mounting, 12.7 mm lead length with 63.5 mm x 63.5 mm copper pad.

Electrical characteristics

Ratings at TA=25°C (unless otherwise specified)

Parameter	Test Conditions	Symbol	ER502	ER504	ER506	Unit
Maximum forward voltage	IF=5.0 A	VF	0.95	1.25	1.70	v
Maximum DC reverse current at rated DC blocking voltage	TA=25°C	IR	5.0			μA
	TA=125°C		150			
Maximum Reverse Recovery Time	RG1	Trr	35			ns

Fig.1 Reverse Recovery Time Characteristic And Test Circuit Diagram



Note: 1. Rise Time = 7ns, max.
Input Impedance = 1megohm, 22pF.
2. Rise Time = 10ns, max.
Source Impedance = 50 ohms.

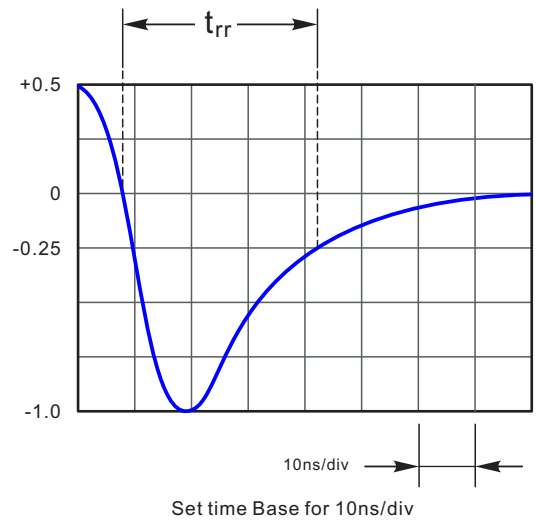


Fig.2 Maximum Average Forward Current Rating

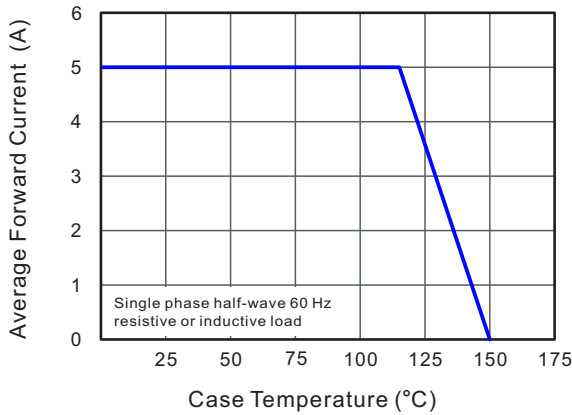


Fig.3 Typical Reverse Characteristics

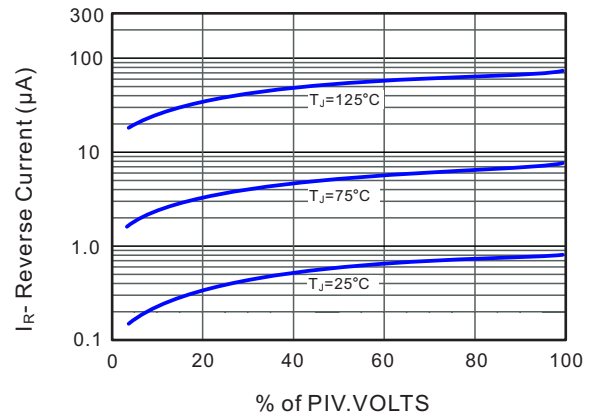


Fig.4 Typical Forward Characteristics

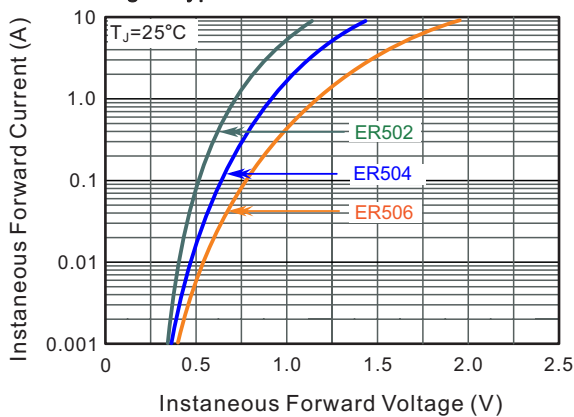


Fig.5 Typical Junction Capacitance

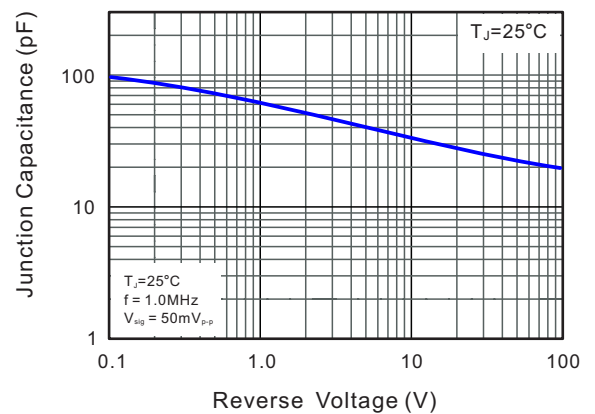


Fig.6 Maximum Non-Repetitive Peak Forward Surge Current

