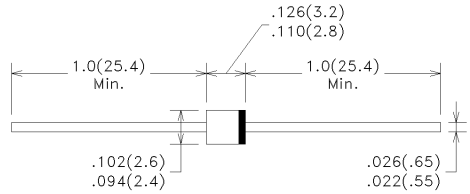
1H1 Thru 1H8

Axial High Efficient Rectifiers

Package Outline Dimensions in mm (inches)

R-1



Features

- High reliability
- Low forward voltage drop
- Ultrafast 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:R-1 Plastic Package
- Polarity:Color band denotes cathode end

Maximum ratings

Ratings at TA=25℃ (unless otherwise specified)

Parameter	Symbol	1H1	1H2	1H3	1H4	1H5	1H6	1H7	1H8	Unit
Maximum recurrent peak reverse voltage	V_{RRM}	50	100	200	300	400	600	800	1000	V
Maximum RMS voltage	V_{RMS}	35	70	140	210	280	420	560	700	V
Maximum DC blocking voltage	V_{DC}	50	100	200	300	400	600	800	1000	V
Maximum average forward rectified current	$I_{F(AV)}$	1.0								A
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load	I_{FSM}	30								A
Storage temperature range	T_S	-55 ~ 150								°C
Operating Junction temperature range	Tj	-55 ~ 125								°C
Thermal Resistance (Typical)	R_{thJA}	85								°C /W

Electrical characteristics

Ratings at TA=25℃ (unless otherwise specified)

Parameter	Test Conditions	Symbol	1H1 thru 1H3	1H4 thru 1H5	1H6 thru 1H8	Unit
Maximum forward voltage	IF=1.0 A	VF	1.0	1.3	1.7	V
Maximum Reverse Recovery Time	RG1	Trr	50		75	ns
Maximum DC reverse current at rated DC blocking voltage	TA=25°C	IR	5.0			μA
	TA=100°C		100			
Typical junction capacitance	4.0 V, 1 MHz	Cj	20			pF

Typical Characteristics

Fig.1 Forward Current Derating Curve

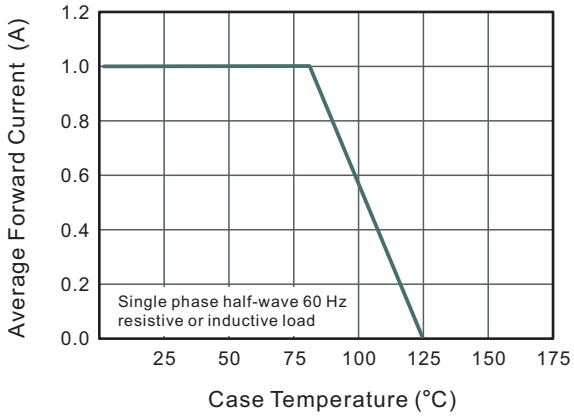


Fig.2 Typical Reverse Characteristics

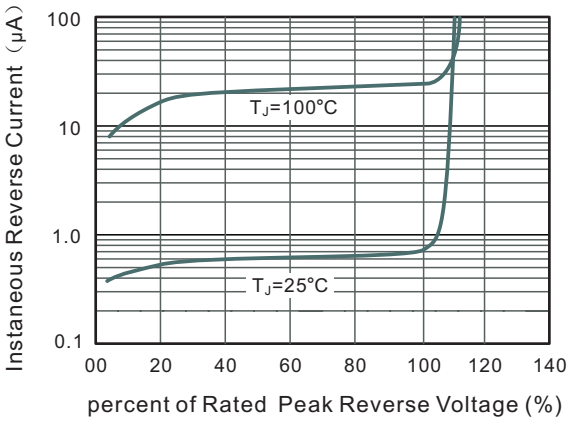


Fig.3 Typical Forward Characteristics

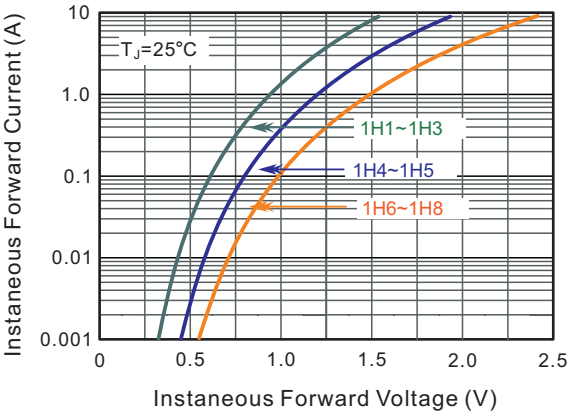


Fig.4 Maximum Non-Repetitive Peak Forward Surage Current

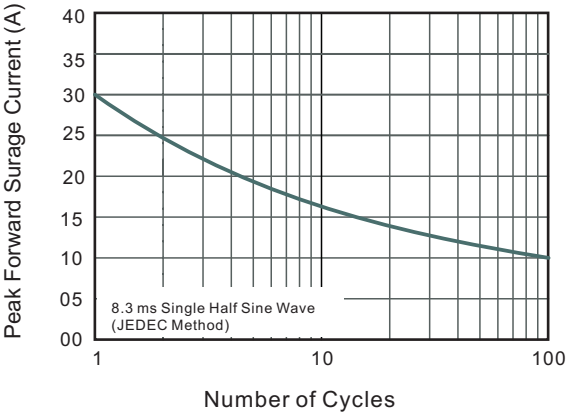


Fig.5 Typical Junction Capacitance