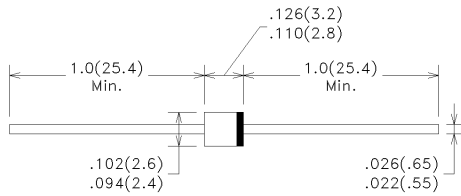


Package Outline Dimensions in mm (inches)

R-1



Features

- High recovery voltage
- Low forward voltage drop
- Fast 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°C (unless otherwise specified)

Parameter	Symbol	1F1	1F2	1F3	1F4	1F5	1F6	1F7	Unit
Maximum recurrent peak reverse voltage	V _{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V _{RMS}	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	V _{DC}	50	100	200	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	T _J	-55 ~ 125							°C
Thermal Resistance (Typical)	R _{thJA}	85							°C /W

Electrical characteristics

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

Parameter	Test Conditions	Symbol	1F1 thru 1F4	1F5	1F6	1F7	Unit
Maximum forward voltage	IF=1.0 A	VF	1.3				V
Maximum Reverse Recovery Time	RG1	Trr	150	250	500		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

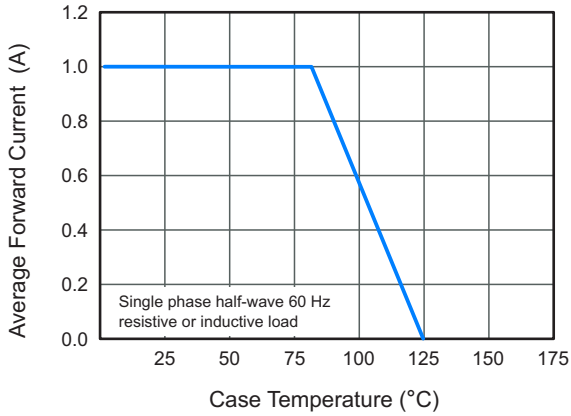


Fig.2 Typical Reverse Characteristics

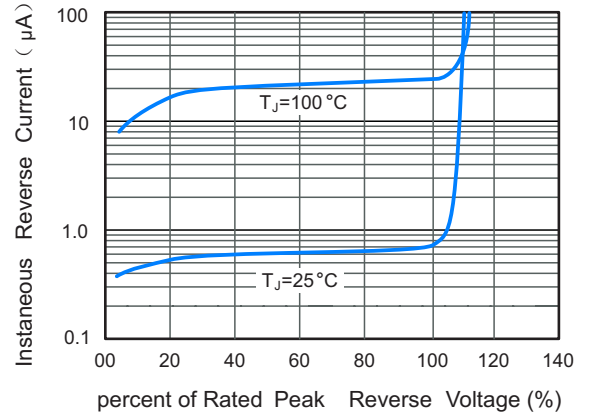


Fig.3 Typical Instantaneous Forward Characteristics

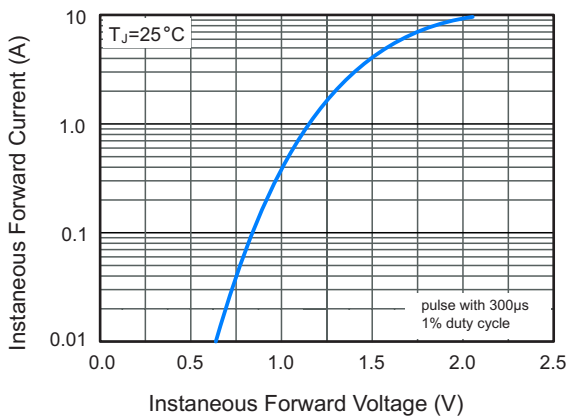


Fig.4 Typical Junction Capacitance

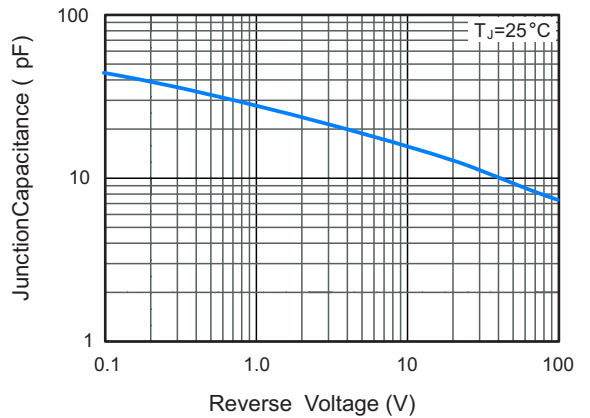


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

