



R-1

Features

- High current capability
- High surge current capability
- Low reverse current
- Component in accordance to RoHS 2002/95/EC

Ordering Information

Part No.	Package	Packing
1Ax	R-1	5000 / Reel

General Purpose Rectifiers Plastic Passivation Junction

Device P/N	
Part Number	Remark
1Ax	General
1Ax-H	Halogen Free

Primary Characteristics

I_F	1	A
V_{RRM}	50~1000	V
I_{FSM}	25	A
V_F	1.1	V
$T_J \text{ max}$	125	°C

Mechanical Data

- Cases: R-1
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0
- Terminals: Lead free Plating (Tin Finish)
Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Weight: 0.201 grams (approximate)

Maximum Ratings (TA=25°C unless otherwise noted)

PARAMETER	SYMBOL	1A1	1A2	1A3	1A4	1A5	1A6	1A7	UNIT
Maximum repetitive 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	1							A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	25							A
Maximum Instantaneous Forward Voltage $I_F=1A @ 25^\circ C$	V_F	1.1							V
Maximum DC Reverse Current @ TA=25°C at Rated DC Blocking Voltage @ TA=100°C	I_R	5 50							uA
Typical Junction Capacitance(NOTE1)	C_j	25							pF
Typical Thermal Resistance	$R_{\theta JC}$	50							°C/W
Operating Temperature Range	T_J	-55 to +125							°C
Storage Temperature Range	T_{STG}	-55 to +150							°C
Marking Code		1A1	1A2	1A3	1A4	1A5	1A6	1A7	

NOTES:

1. Measured at 1.0MHZ and applied reverse voltage of 4.0V DC

General Purpose Rectifiers Plastic Passivation Junction

Rating and Characteristics Curves

FIG. 1-Typical Forward Current Derating Curve

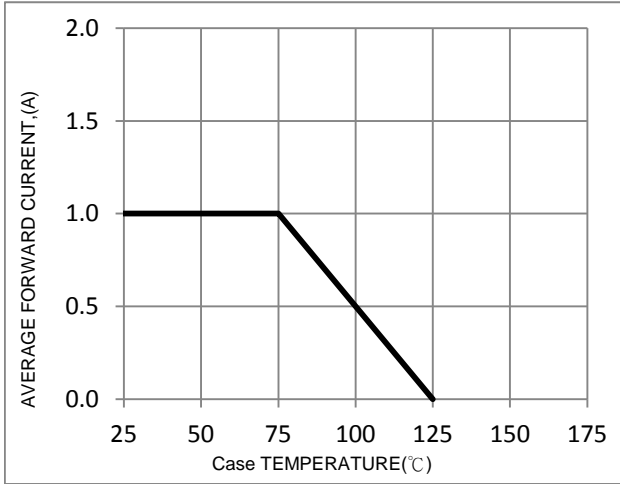


FIG. 2-Typical Forward Characteristics

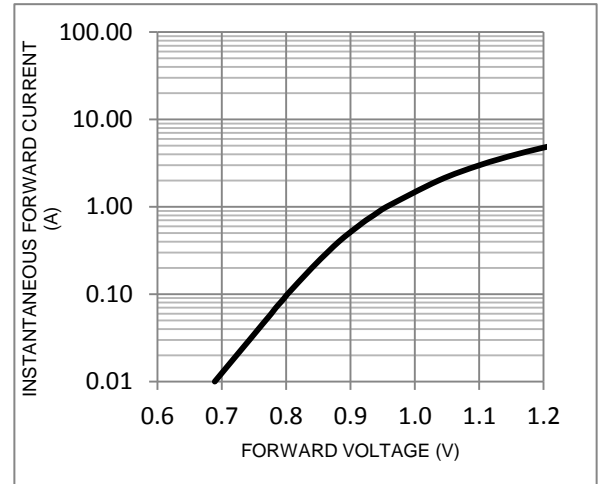


FIG. 3-Maximum Non-Repetitive Forward Surge Current

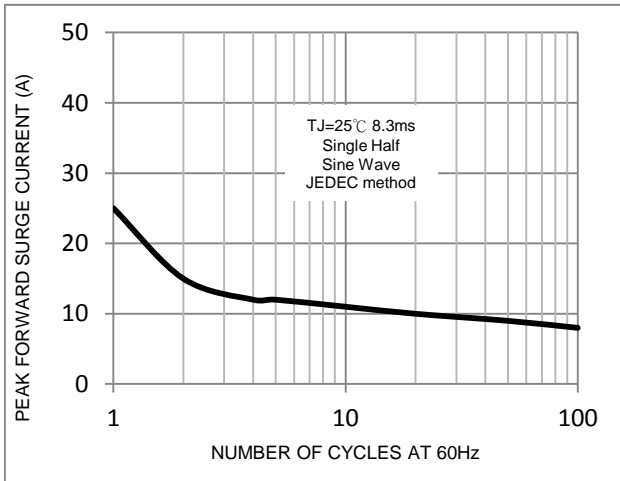


FIG. 4-Typical Reverse Characteristics

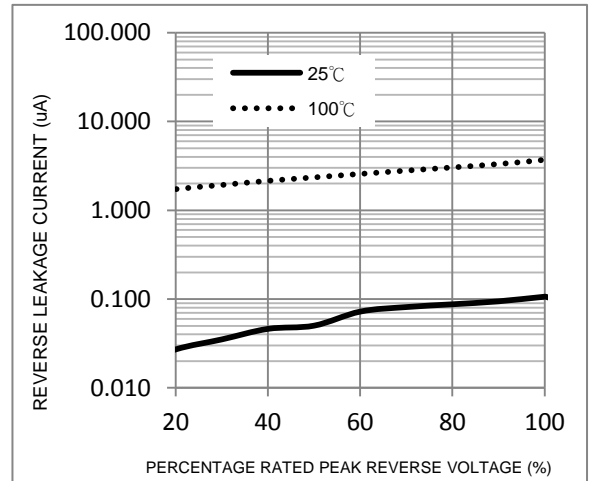
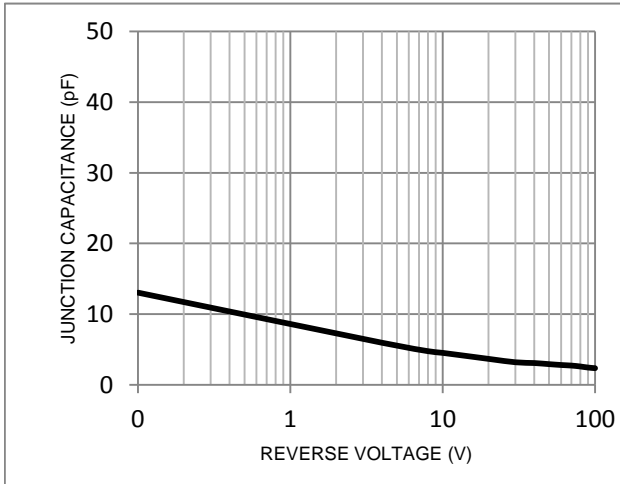
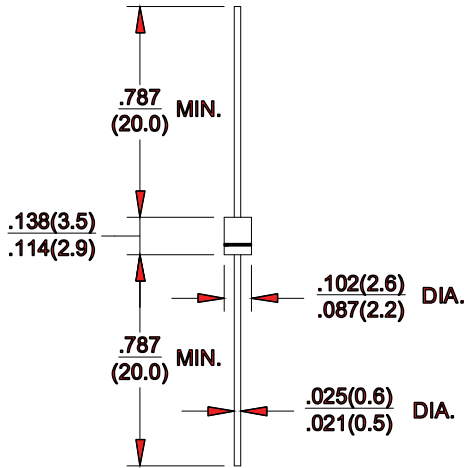


FIG. 5-Typical Junction Capacitance



General Purpose Rectifiers Plastic Passivation Junction

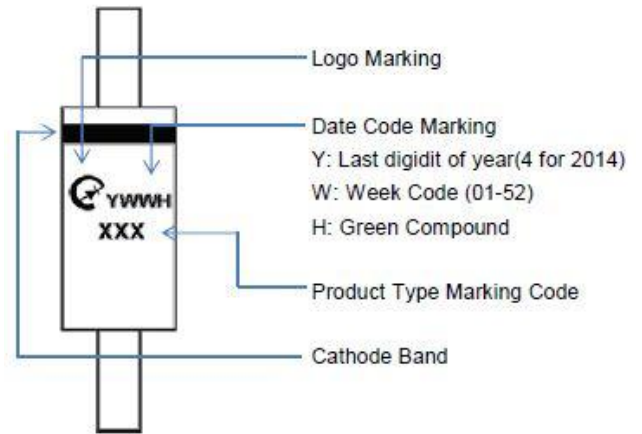
Package Outline Dimensions



R-1

Dimensions in inches and (millimeters)

Marking Information



Axial Lead Reel Taping Specification

Component Outline	Component Pitch A	Inner Tape Pitch B	Cumulative Tolerance
	$\pm 0.5\text{mm}(0.02")$	$+1.5\text{mm}/-0.4\text{mm}(0.59")$	
R-1	5.0mm	52.4mm	2.0mm/20 pitch

Item	Symbol	Specification(mm)	Specification(inch)
Component Alignment	Z	1.2max	0.048 max
Tape width	T	6.0 ± 0.4	0.236 ± 0.016
Exposed adhesive	E	0.8 max	0.032 max
Body eccentricity	L1-L2	1.0 max	0.040 max
Reel Outside diameter	D	330.0	13.0
Reel inner diameter	D1	85.7 ± 5.0	3.375 ± 0.197
Reel hole diameter	Do	30.0 ± 5.0	1.181 ± 0.197
Reel width	W	79.0 ± 1.0	3.110 ± 0.040

Notes:

1. Each component lead shall be sandwiched between tapes for a minimum of 3.2mm(0.126")
2. The reel width "W" for 26mm taping is $50.0\pm 1.0\text{mm}(1.97\pm 0.04")$

