

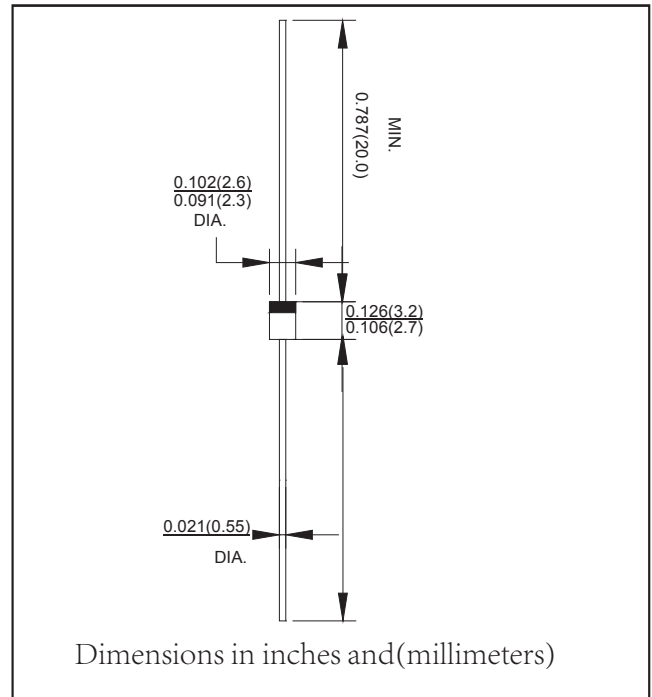
## R-1 PLASTIC SILICON RECTIFIERS

### FEATURES

- Diffused junction
- Low forward voltage drop
- High current capability
- High reliability
- High surge current capability

### MECHANICAL DATA

- Case: JEDEC R-1, molded plastic
- Terminals: Axial lead, solderable per MIL-STD-202, Method 208
- Polarity: Color band denotes cathode
- Mounting position: Any



## MAXIMUM RATINGS AND CHARACTERISTICS

@ 25°C Ambient Temperature (unless otherwise noted)

Parameter	Symbol	1H1	1H2	1H3	1H4	1H5	1H6	1H7	1H8	UNITS
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 9.5mm lead length, @ $T_A=75^\circ\text{C}$	$I_{F(AV)}$	1.0								A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load @ $T_J=125^\circ\text{C}$	$I_{FSM}$	30.0								A
Maximum instantaneous forward voltage @ 1.0 A	$V_F$	1.0		1.3		1.7				V
Maximum reverse current @ $T_A=25^\circ\text{C}$ at rated DC blocking voltage @ $T_A=100^\circ\text{C}$	$I_R$	5				125.0				$\mu\text{A}$
Maximum reverse recovery time (Note1)	$t_{rr}$	50				75				ns
Typical junction capacitance (Note2)	$C_J$	20				15				pF
Typical thermal resistance (Note3)	$R_{\theta JA}$	60								$^\circ\text{C}/\text{W}$
Operating junction temperature range	$T_J$	- 55 ---- + 150								$^\circ\text{C}$
Storage temperature range	$T_{STG}$	- 55 ---- + 150								$^\circ\text{C}$

NOTE: 1. Measured with  $I_F=0.5\text{A}$ ,  $I_R=1\text{A}$ ,  $I_{rr}=0.25\text{A}$ .  
 2. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.  
 3. Thermal resistance from junction to ambient.

## RATINGS AND CHARACTERISTIC CURVES

FIG.1:  $I_o$ - $T_a$  Curve

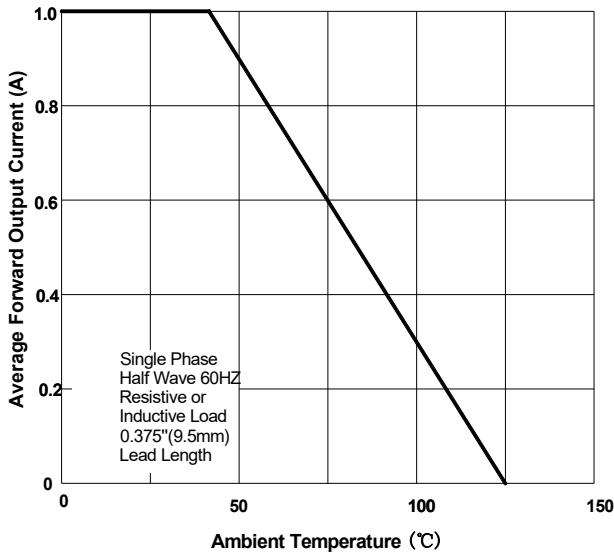


FIG.2: Surge Forward Current Capability

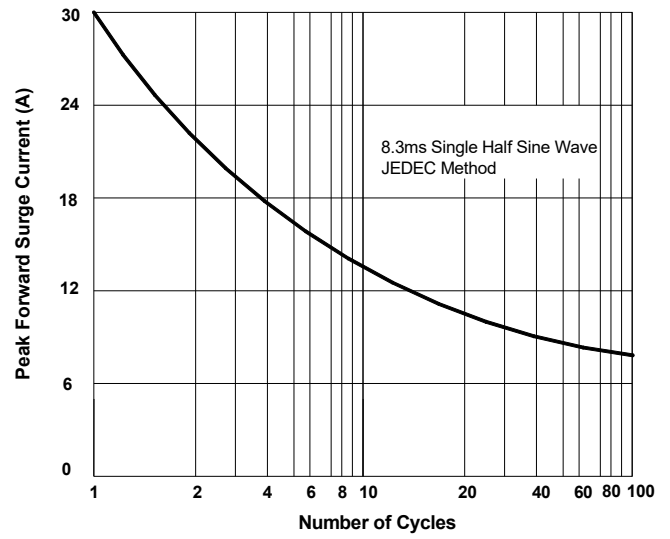


FIG.3: Forward Voltage

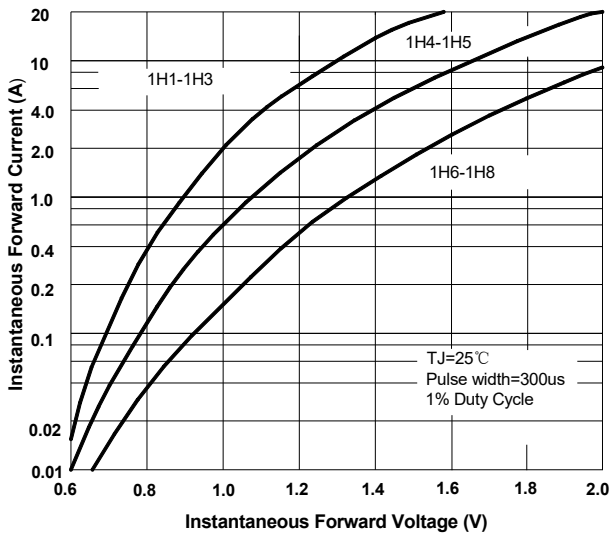


FIG.4: Typical Reverse Characteristics

