

# 1A1 THRU 1A7

## SILICON RECTIFIERS

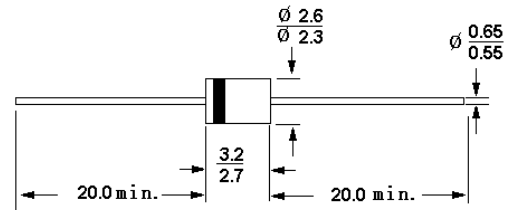
Voltage Range – 50 to 1000 Volts

Current – 1.0 Amperes

R-1

### Features

- High reliability
- Low leakage
- Low forward voltage drop
- High current capability



Dimensions in mm

### Mechanical Data

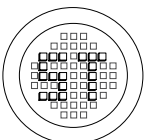
- Case: Molded plastic black body
- Lead: MIL-STD 202E method 208C guaranteed.
- Mounting Position: Any

### Absolute Maximum Ratings and Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.. Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

	Symbols	1A1	1A2	1A3	1A4	1A5	1A6	1A7	Units
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 at $T_A = 25^\circ\text{C}$	$I_o$	1.0							A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	25							A
Maximum instantaneous forward voltage at 1A DC	$V_F$	1.1							V
Maximum DC reverse current at rated DC blocking voltage	@ $T_A = 25^\circ\text{C}$	5.0							uA
	@ $T_A = 100^\circ\text{C}$	50							
Maximum full load reverse current full cycle average 0.375" (9.5mm) lead length at $T_L = 75^\circ\text{C}$		100							uA
Typical junction capacitance (note)	$C_J$	15							pF
Typical thermal resistance	$R_{\theta JA}$	60							$^\circ\text{C/W}$
Operating and storage temperature range	$T_J, T_S$	-65 to +150							$^\circ\text{C}$

Note: Measured at 1MHz and applied reverse voltage of 4V.



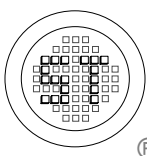
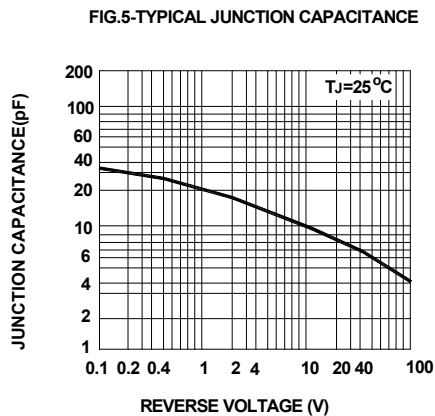
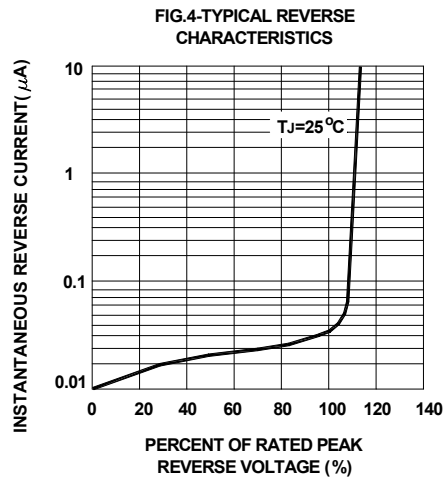
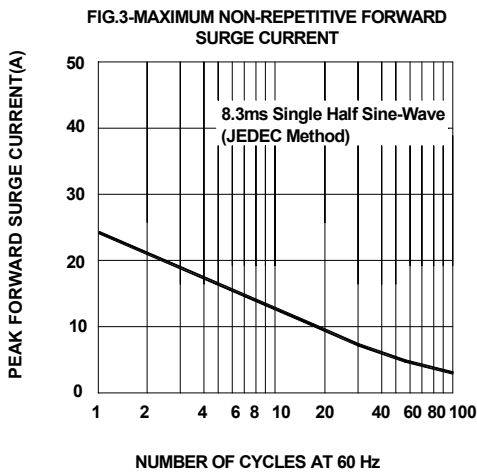
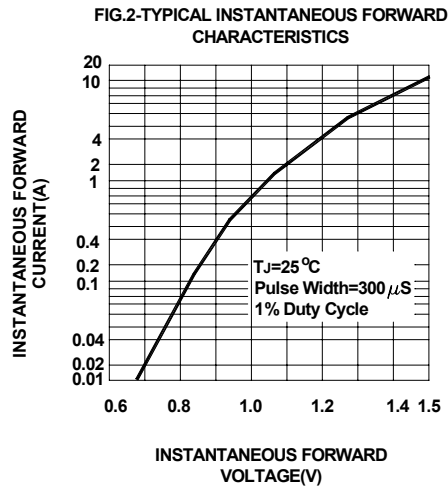
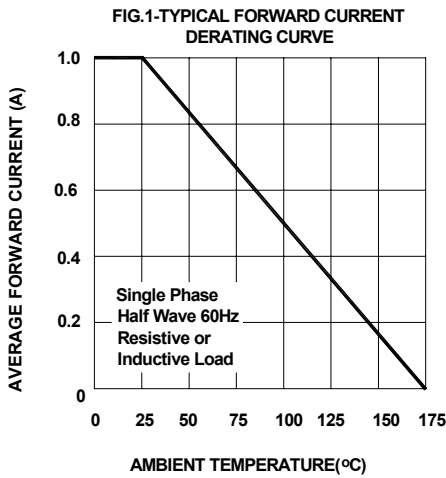
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**РАДИОТЕХ**

Тел.: (495) 795-0805  
Факс: (495) 234-1603  
Эл. почта: info@rct.ru  
Веб: www.rct.ru

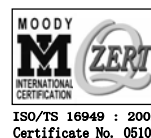
# 1A1 THRU 1A7

## RATING AND CHARACTERISTIC CURVES ( 1A1 thru 1A7)



**SEMTECH ELECTRONICS LTD.**

(Subsidiary of Semtech International Holdings Limited, a company listed on the Hong Kong Stock Exchange, Stock Code: 724)



Dated : 08/09/2003