

1A1 THRU 1A7

SILICON RECTIFIERS

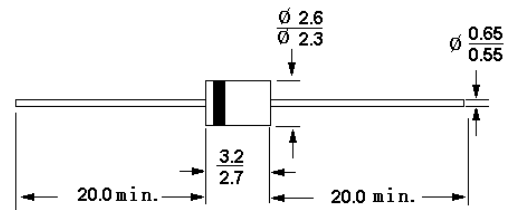
Voltage Range – 50 to 1000 Volts

Current – 1.0 Amperes

R-1

Features

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



Dimensions in mm

Mechanical Data

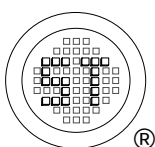
- **Case:** Molded plastic black body
- **Lead:** MIL-STD 202E method 208C guaranteed.
- **Mounting Position:** Any

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 °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 °C	I _R	5.0							uA
	@T _A = 100 °C		50							
Maximum full load reverse current full cycle average 0.375" (9.5mm) lead length at T _L =75 °C				100						
Typical junction capacitance (note)		C _J	15							pF
Typical thermal resistance		R _{θJA}	60							°C/W
Operating and storage temperature range		T _J , T _{Stg}	-65 to +150							°C

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



SEMTECH ELECTRONICS LTD.
Subsidiary of Sino-Tech International (BVI) Limited



Dated : 08/09/2003

RATING AND CHARACTERISTIC CURVES (1A1 thru 1A7)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

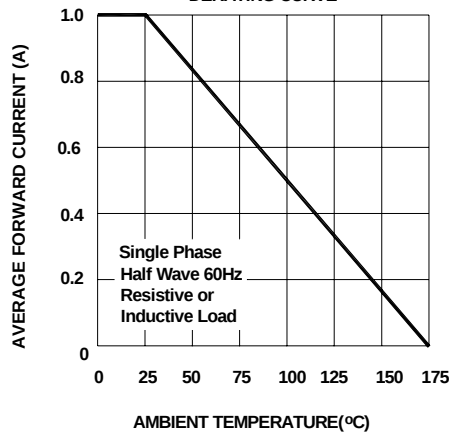


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

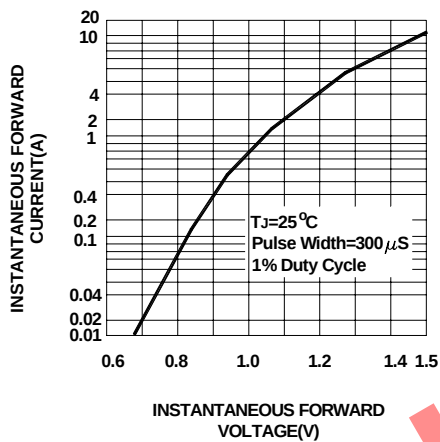


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

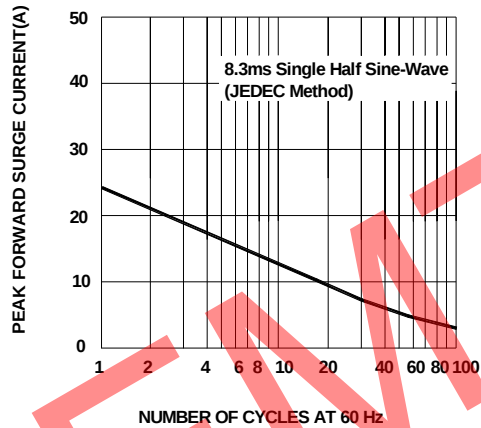


FIG.4-TYPICAL REVERSE CHARACTERISTICS

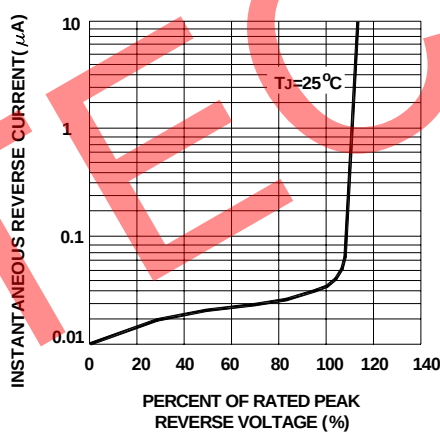
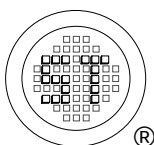
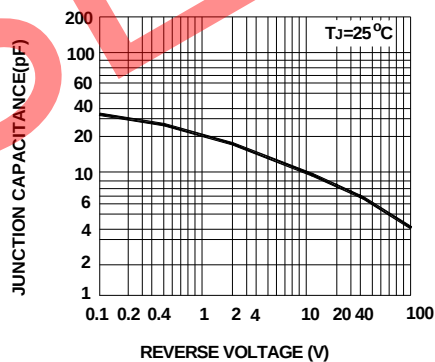


FIG.5-TYPICAL JUNCTION CAPACITANCE



SEMTECH ELECTRONICS LTD.
Subsidiary of Sino-Tech International (BVI) Limited



Dated : 08/09/2003