



1A1 thru 1A7

PLASTIC SILICON RECTIFIERS		REVERSE VOLTAGE - 50 to 1000 Volts FORWARD CURRENT - 1.0 Ampere								
FEATURES ● Low cost ● Diffused junction ● Low forward voltage drop ● Low reverse leakage current ● High current capability ● The plastic material carries UL recognition 94V-0		Dimensions in inches and (millimeters)								
MECHANICAL DATA ● Case: JEDEC R-1 molded plastic ● Polarity: Color band denotes cathode ● Weight: 0.15 grams ● Mounting position : Any										
MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS										
Rating at 25°C ambient temperature unless otherwise specified.										
Single phase, half wave ,60Hz, resistive or inductive load.										
For capacitive load, derate current by 20%.										
CHARACTERISTICS		SYMBOL	1A1	1A2	1A3	1A4	1A5	1A6	1A7	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 @T _A =75 °C		I _(AV)	1.0							A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load(JEDEC Method)		I _{FSM}	30							A
Maximum Forward Voltage at 1.0A DC		V _F	1.0							V
Maximum DC Reverse Current @T _J =25°C at Rated DC Blocking Voltage @T _J =100°C		I _R	5.0 50							μA
Typical Junction Capacitance (Note1)		C _J	10							pF
Typical Thermal Resistance (Note2)		R _{θJA}	26							°C/W
Operating Temperature Range		T _J	-55 to +125							°C
Storage Temperature Range		T _{STG}	-55 to +150							°C

NOTES: 1. Measured at 1.0 MHz and applied reverse voltage of 4.0V DC.

2. Thermal resistance junction to ambient.



RATING AND CHARACTERISTIC CURVES
1A1 thru 1A7



FIG. 1 - FORWARD CURRENT DERATING CURVE

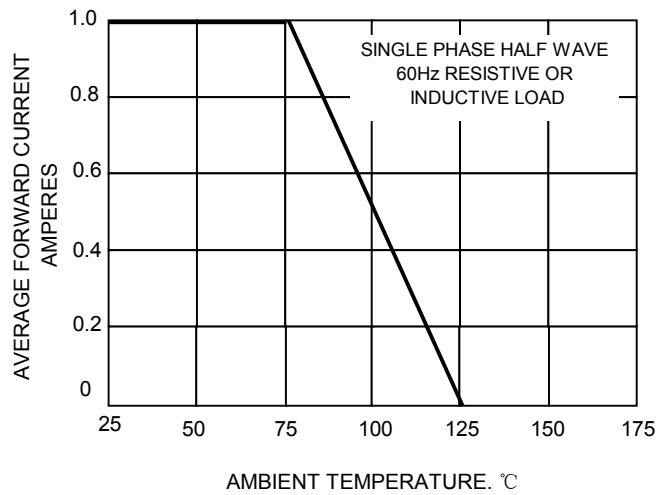


FIG. 2 – MAXIMUM NON-REPETITIVE SURGE CURRENT

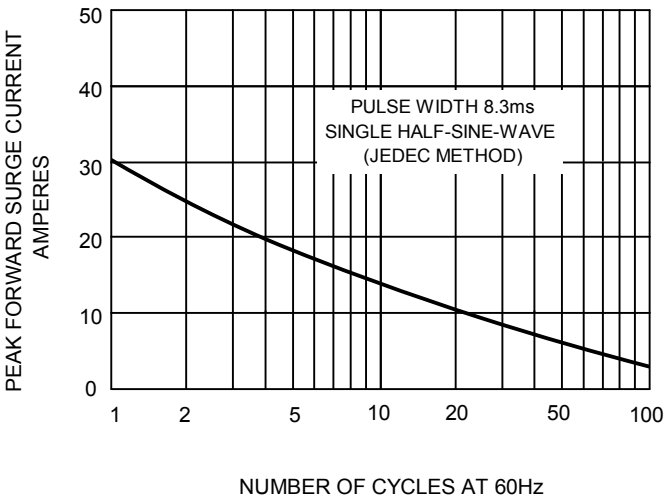


FIG. 3 – TYPICAL JUNCTION CAPACITANCE

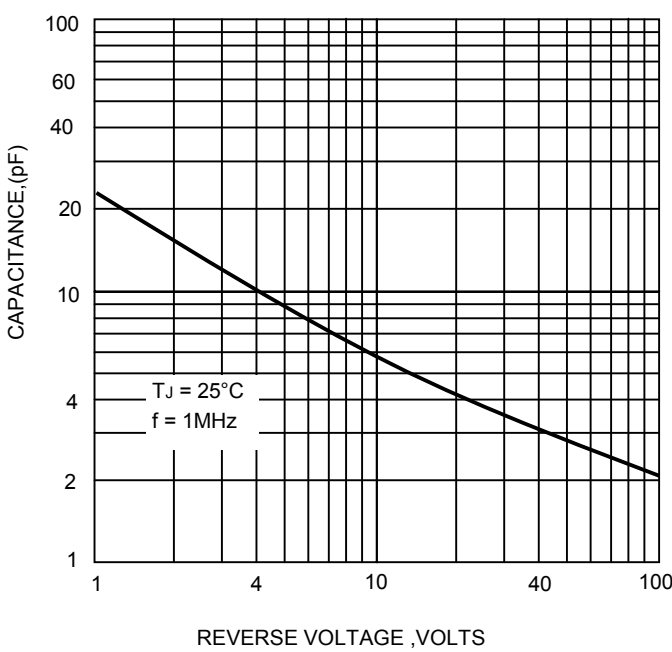


FIG.4 – TYPICAL FORWARD CHARACTERISTICS

