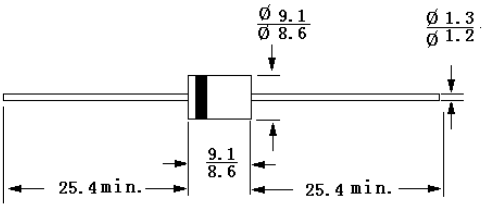
8A01 THRU 8A07

General Purpose Plastic Rectifiers
Reverse Voltage – 50 to 1000 V
Forward Current – 8 A

Features

- Diffused junction
- High current capability and low forward voltage drop
- Low reverse leakage current

R-6



Dimensions in mm

Mechanical Data

- **Case:** Molded plastic
- **Terminats:** Plated leads solderable per MIL-STD-202, Method 208
- **Polarity:** Cathode band
- **Mounting position:** Any

Absolute Maximum Ratings and Characteristics

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

Parameter	Symbols	8A01	8A02	8A03	8A04	8A05	8A06	8A07	Units
Maximum Peak Repetitive Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Reverse Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_R	50	100	200	400	600	800	1000	V
Maximum Average Rectified Current 0.375" (9.5 mm) Lead Length at T_A = 60 °C	$I_{F(AV)}$	8							A
Non-repetitive Peak Forward Surge Current 8.3 ms Single Half sine-wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	400							A
Maximum Forward Voltage at I_F = 6 A	V_F	1.1							V
Maximum Peak Reverse Current at T_A = 25 °C at Rated DC Blocking Voltage at T_A = 100 °C	I_R	10 100							μA
Typical Junction Capacitance [1]	C_J	120							pF
Typical Thermal Resistance Junction to Ambient [2]	$R_{\theta JA}$	10							°C/W
Operating and Storage Temperature Range	T_j, T_{stg}	- 55 to + 150							°C

[1] Measured at 1 MHz and applied reverse voltage of 4 V

[2] Thermal resistance from junction to ambient 0.375" (9.5 mm) lead length P.C.B. mounted with 1.1 X1.1" (30 X 30 mm) copper pads.

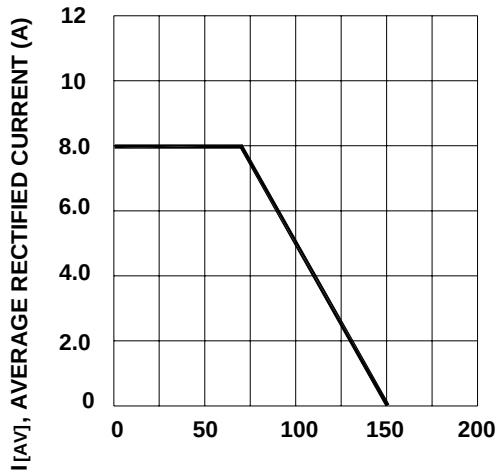


Fig.1 Forward Current Derating Curve

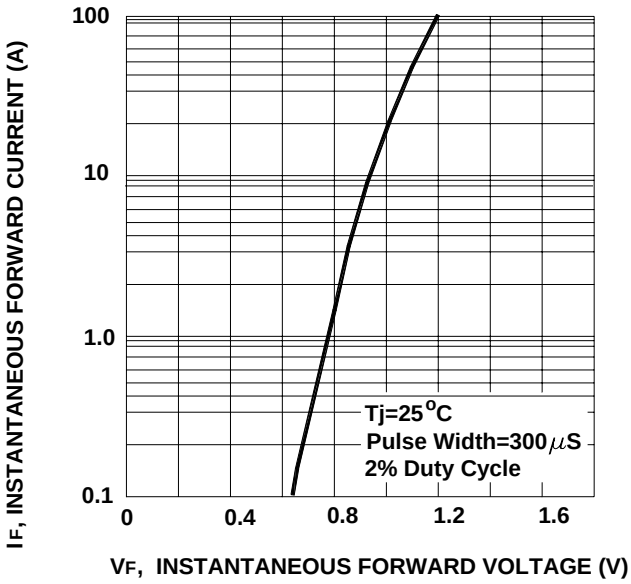


Fig.2 Typical Forward Characteristics

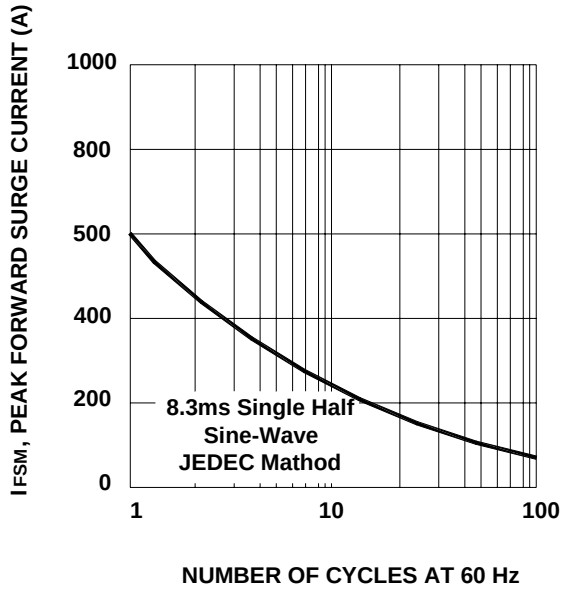


Fig.3 Maximum Non-Repetitive Peak Forward Surge Current

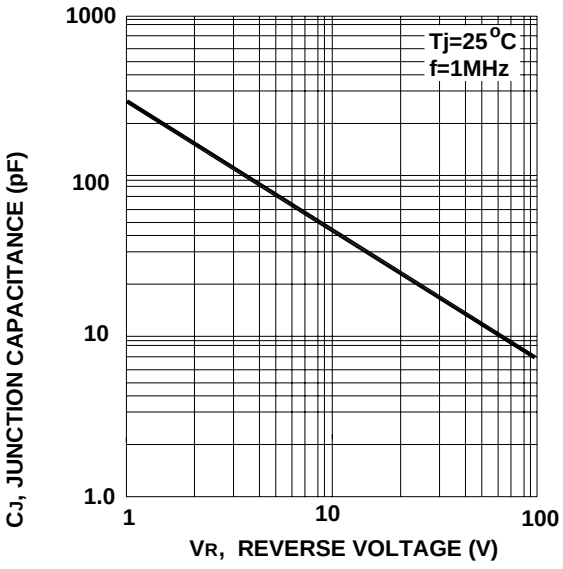


Fig.4 Typical Junction Capacitance