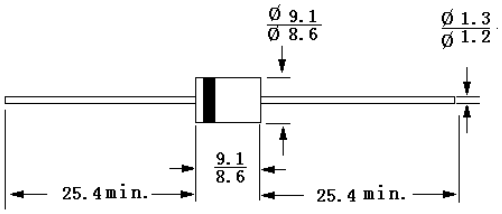
10A05 THRU 10A10

General Purpose Plastic Rectifiers

Reverse Voltage - 50 to 1000 V

Forward Current - 10 A

R-6



Dimensions in mm

Features

- Low cost
- Diffused junction
- Low forward voltage drop
- Low reverse leakage current
- High current capability
- The plastic material carries UL recognition 94V-0

Mechanical Data

- **Case:** JEDEC R-6 molded plastic
- **Polarity:** Color band denotes cathode
- **Mounting position:** Any

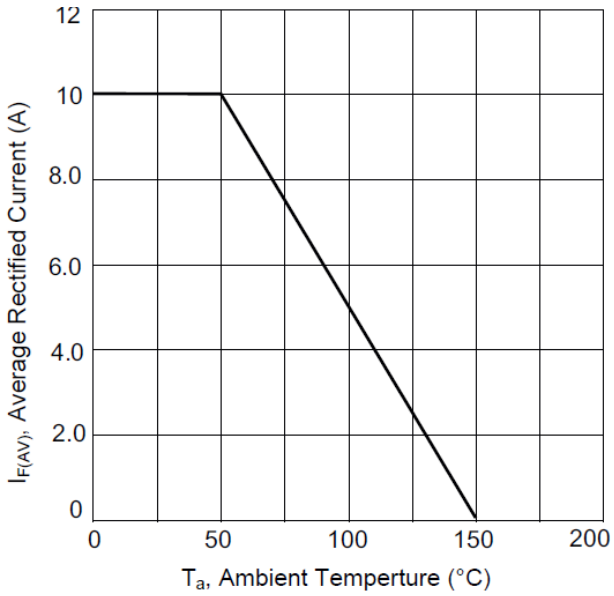
Absolute Maximum Ratings and Characteristics

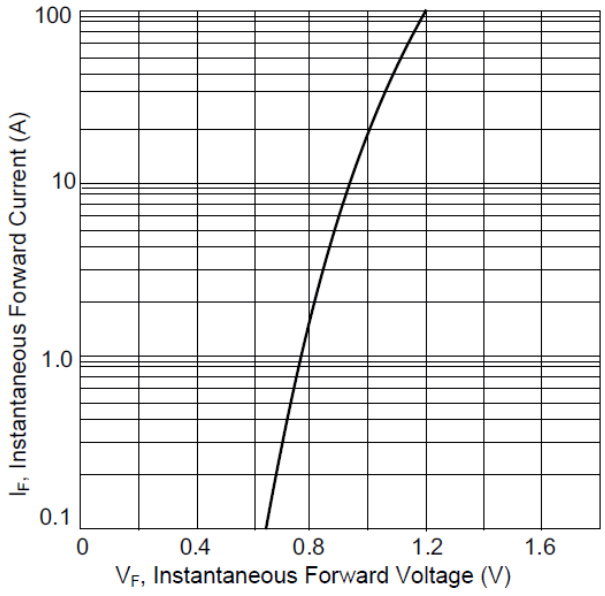
Ratings at 25℃ ambient temperature unless otherwise specified. Single phase, half wave, 60Hz, resistive or inductive load..
For capacitive load, derate current by 20%.

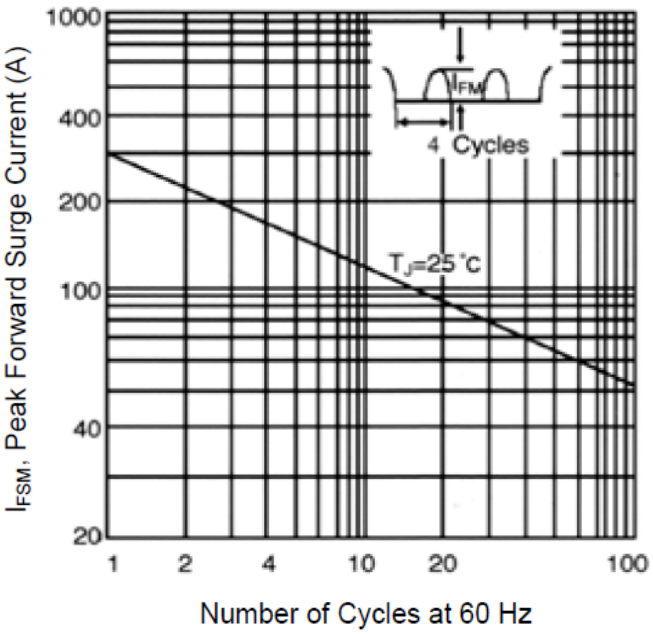
Parameter	Symbols	10A05	10A1	10A2	10A4	10A6	10A8	10A10	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current T_a = 50℃	$I_{F(AV)}$	10							A
Peak Forward Surge Current 8.3ms Single half sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	300							A
Maximum Forward Voltage at 10 A DC	V_F	1							V
Maximum DC Reverse Current T_J = 25℃ at Rated DC Blocking Voltage T_J= 100℃	I_R	10 100							μA
Typical Junction Capacitance [1]	C_J	150							pF
Typical Thermal Resistance [2]	$R_{\theta JA}$	10							℃/W
Operating Junction Temperature	T_J	- 55 to + 150							℃
Storage Temperature Range	T_{Stg}	- 55 to + 150							℃

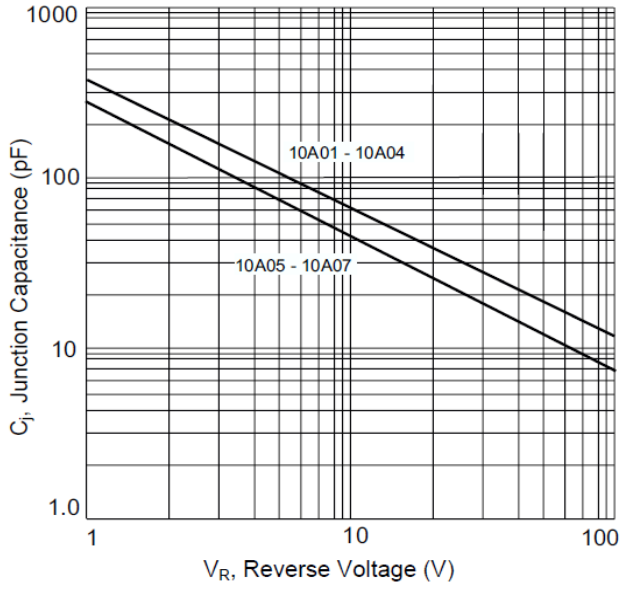
[1] Measured at 1 MH_Z and applied reverse voltage of 4 V D.C.

[2] Thermal Resistance Junction to Ambient.


12
10
8.0
6.0
4.0
2.0
0
0
50
100
150
200
$I_{F(AV)}$, Average Rectified Current (A)
T_a, Ambient Temperture (°C)


100
10
1.0
0.1
0
0.4
0.8
1.2
1.6
I_F, Instantaneous Forward Current (A)
V_F, Instantaneous Forward Voltage (V)


1000
400
200
100
40
20
1
2
4
10
20
100
I_{FM}
4 Cycles
T_J=25 °C
I_{FSM}, Peak Forward Surge Current (A)
Number of Cycles at 60 Hz


1000
100
10
1.0
1
10
100
10A01 - 10A04
10A05 - 10A07
C_j, Junction Capacitance (pF)
V_R, Reverse Voltage (V)