

FEATURES

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



DO-201



Schematic Symbol

MECHANICAL DATA

- | Case: DO-201 Molded plastic
- | Polarity: Color band denotes cathode
- | Mounting Position: Any

APPROVALS

RoHS	Compliance with 2011/65/EU
HF	Compliance with IEC61249-2-21:2003

MAXIMUM RATINGS AND CHARACTERISTICS ($T_A=25^{\circ}\text{C}$)

Parameter	Symbol	6A05D	6A1D	6A2D	6A4D	6A6D	6A8D	6A10D	Unit
Marking		6A05	6A1	6A2	6A4	6A6	6A8	6A10	
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 @ $T_A=60^{\circ}\text{C}$	$I_{F(AV)}$	6.0							A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load (JEDEC Method)	I_{FSM}	250							A
Instantaneous Forward Voltage $I_F=6.0\text{A}$	V_F	1.1							V
Maximum DC Reverse Current at Rated DC Blocking Voltage	$T_J=25^{\circ}\text{C}$	I_R 10							μA
	$T_J=100^{\circ}\text{C}$	100							μA
Typical Junction Capacitance 4.0V, 1MHz ⁽¹⁾	C_J	150							pF
Thermal Resistance From Junction to Lead ⁽²⁾	$R_{\theta JL}$	10							$^{\circ}\text{C/W}$
Operating Junction Temperature Range	T_J	-55 ~ +150							$^{\circ}\text{C}$
Storage Temperature Range	T_{STG}	-55 ~ +150							$^{\circ}\text{C}$

Notes:

1. Measured at 1.0 MHz and applied reverse voltage of 4.0V DC
2. Thermal resistance junction to case.

CHARACTERISTIC CURVES

Fig.1 Forward Current Derating Curve

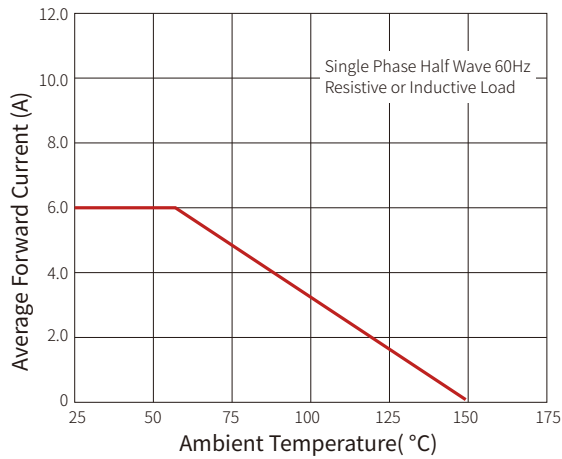


Fig.2 Maximum Non-Repetitive Peak Forward Surge Current

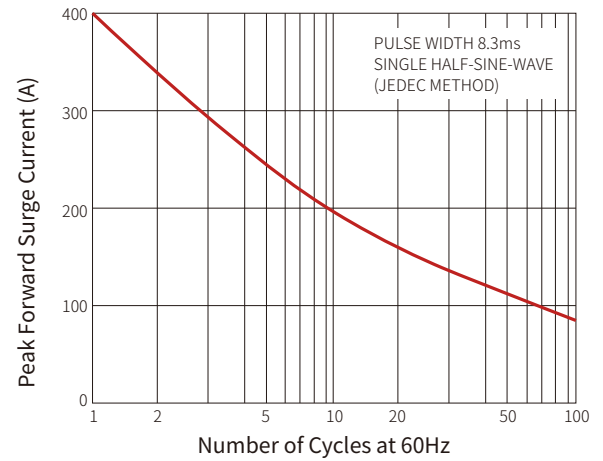


Fig.3 Typical Junction Capacitance

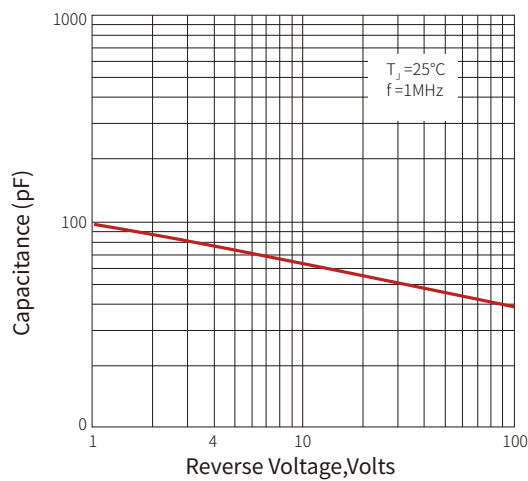
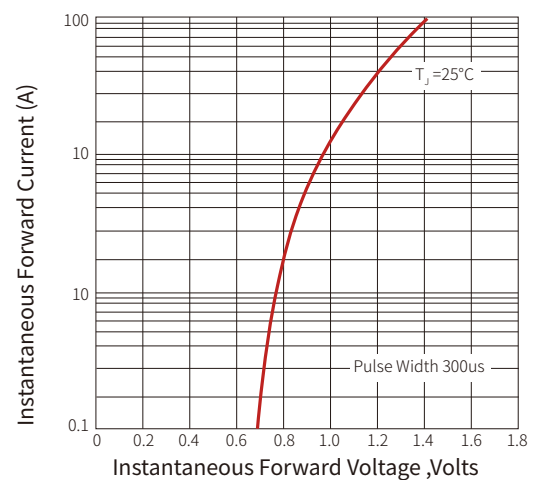
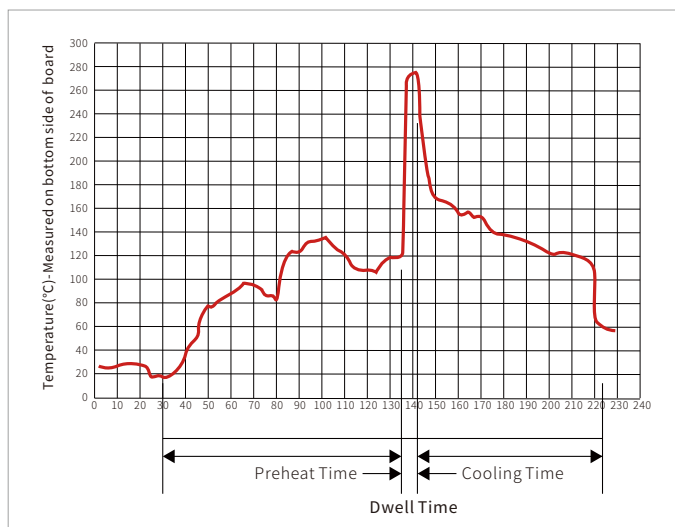


Fig.4 Typical Forward Characteristics

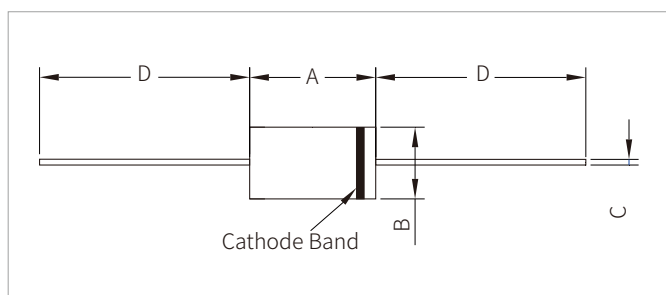


WAVE SOLDERING



Wave Parameter		Lead-free assembly
Pre Heat	Temperature Min	100°C
	Temperature Max	150°C
	Time(min to max)	60 – 180 secs
Solder pot Temperature		280°C Max
Solder Dwell Time		2-5 seconds

DO-201 PACKAGE INFORMATION



Ref.	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	8.50	9.50	0.335	0.375
B	4.80	5.60	0.189	0.220
C	1.10	1.45	0.043	0.057
D	24.00	-	0.945	-

ORDERING INFORMATION

Part Number	Component Package	Per Carton	Description
6A05D-6A10D	DO-201	1250pcs	Reel

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