

FEATURES

- Low forward voltage drop
- Low leakage current
- High forward surge capability
- Meet AEC-Q101 Requirements



R-6/P-600



MECHANICAL DATA

- Case: JEDEC R-6 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	10A05Q	10A1Q	10A2Q	10A4Q	10A6Q	10A8Q	10A10Q	Unit
Marking		10A05	10A1	10A2	10A4	10A6	10A8	10A10	
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	$I_{F(AV)}$	10							A
Peak Forward Surge Current 8.3 ms Single Half Sine-Wave Superimposed On Rated Load	I_{FSM}	300							A
Maximum Forward Voltage at 10A DC	V_F	1.10							V
Maximum Reverse Current at Rated DC Blocking Voltage	$T_A=25^{\circ}\text{C}$	I_R 10							μA
	$T_A=100^{\circ}\text{C}$	100							μA
Typical Junction Capacitance (Note 1)	C_J	125							pF
Typical Thermal Resistance	$R_{\theta JA}$	8							$^{\circ}\text{C/W}$
Operating Junction Temperature Range	T_J	-55 to +150							$^{\circ}\text{C}$
Storage Temperature Range	T_{STG}	-55 to +150							$^{\circ}\text{C}$

Notes:

- Measured at 1 MHz and applied reverse voltage of 4.0 VDC

CHARACTERISTIC CURVES

Fig.1 Typical Forward Current Derating Curve

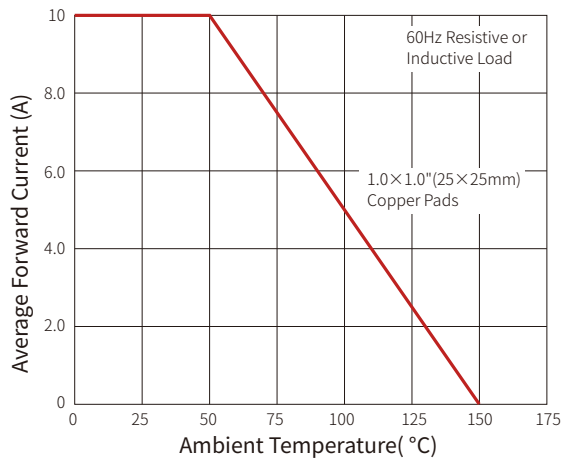


Fig.2 Maximum Non-Repetitive Peak Forward Surge Current

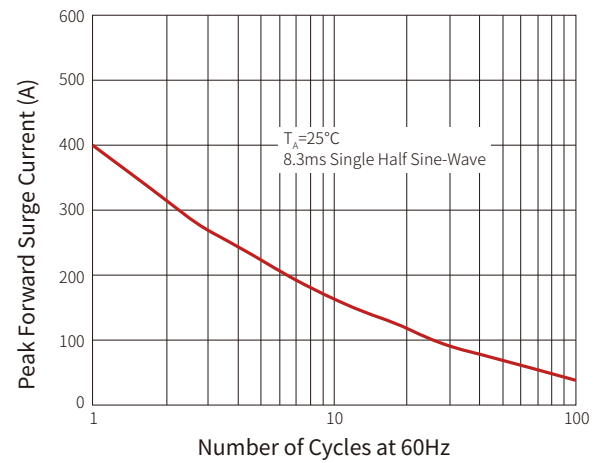


Fig.3 Typical Instantaneous Forward Characteristics

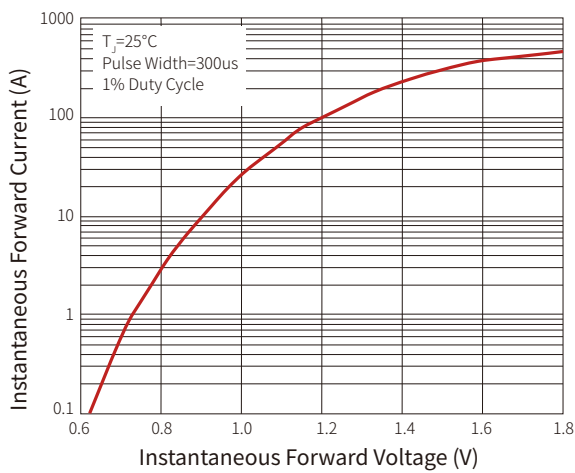


Fig.4 Typical Reverse Characteristics

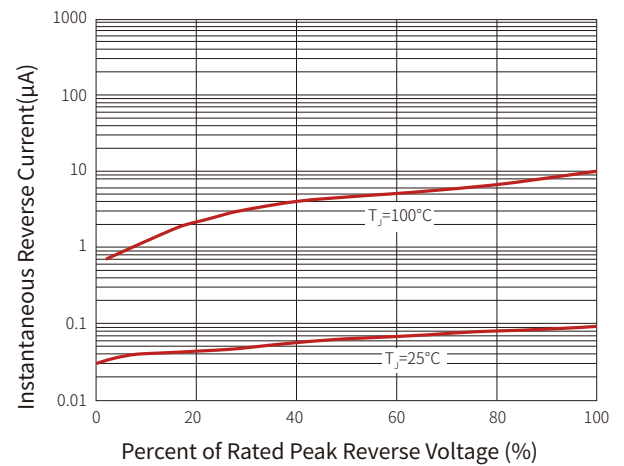
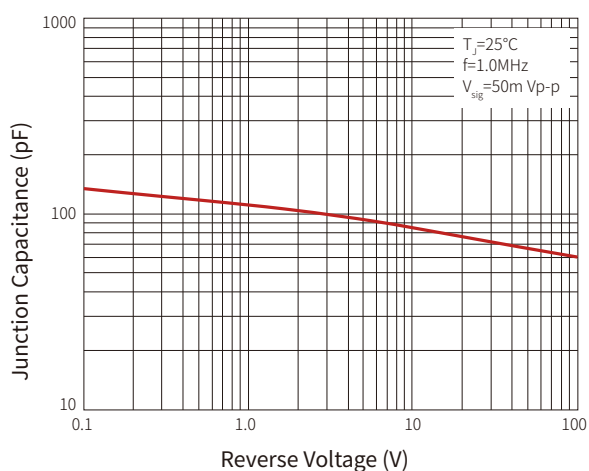
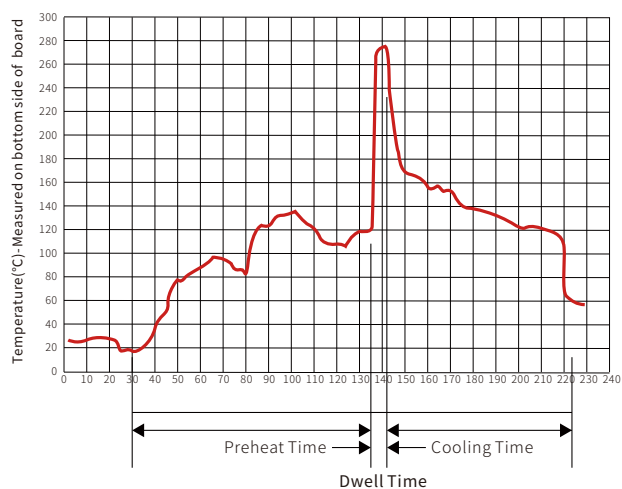


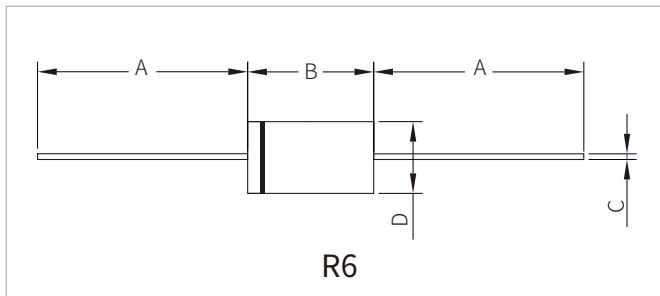
Fig.5 Typical Junction Capacitance


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

P600 PACKAGE INFORMATION



Ref.	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	25.40	-	1.000	-
B	8.60	9.40	0.339	0.370
C	1.20	1.40	0.047	0.055
D	8.60	9.10	0.339	0.358

ORDERING INFORMATION

Part Number	Component Package	QTY/Tape
10A05Q-10A10Q	R6/P600	400

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