

FEATURES

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



R-6/P-600



Schematic Symbol

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°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	I _R				10				µA
T _A =25°C T _A =100°C					100				µA
Typical Junction Capacitance (Note 1)	C _J				125				pF
Typical Thermal Resistance	R _{θJA}				8				°C/W
Operating Junction Temperature Range	T _J				-55 to +150				°C
Storage Temperature Range	T _{STG}				-55 to +150				°C

Notes:

1. Measured at 1 MH and applied reverse voltage of 4.0 VDC

CHARACTERISTIC CURVES

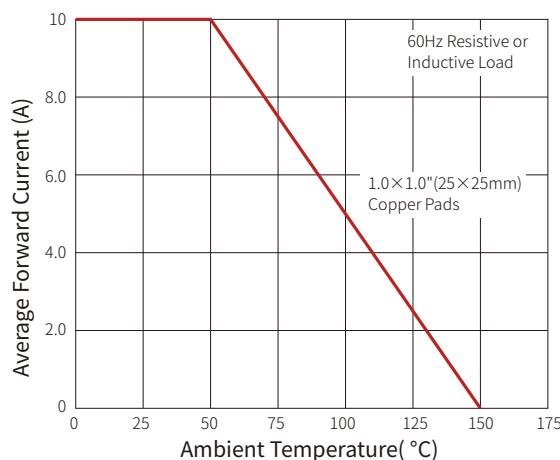
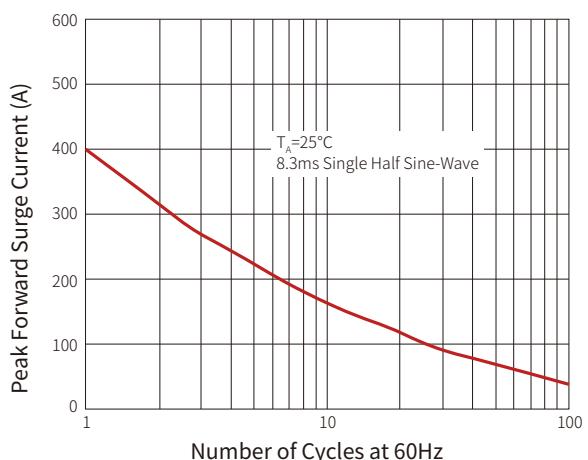
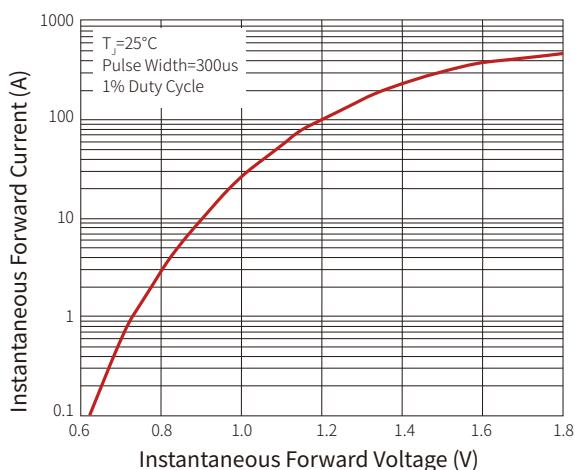
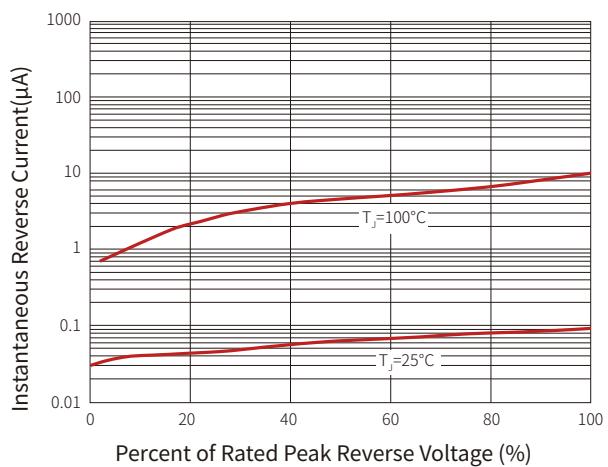
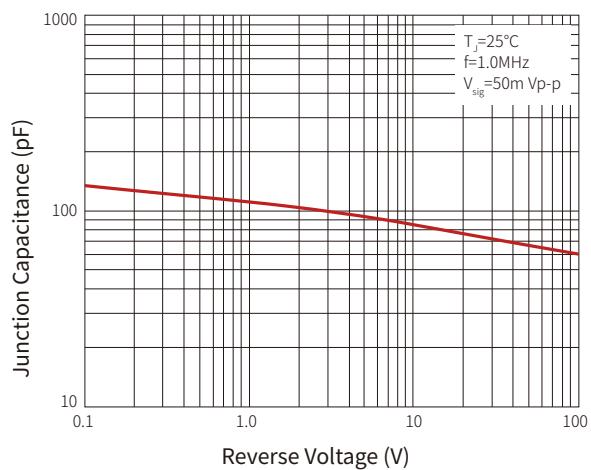
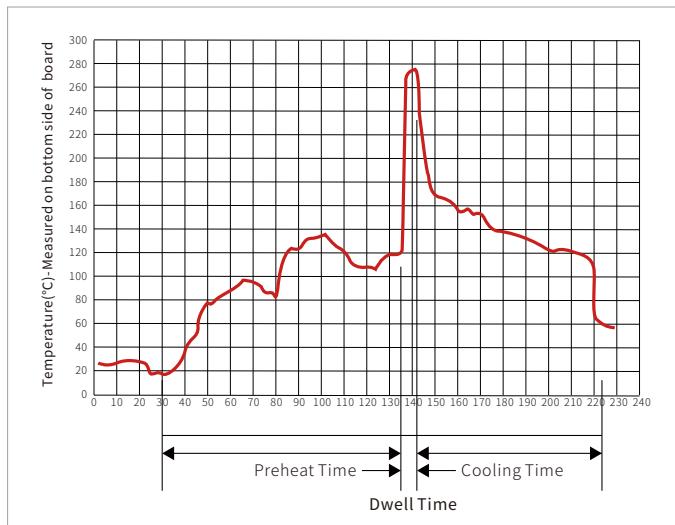
Fig.1 Typical Forward Current Derating Curve

Fig.2 Maximum Non-Repetitive Peak Forward Surge Current

Fig.3 Typical Instantaneous Forward Characteristics

Fig.4 Typical Reverse Characteristics


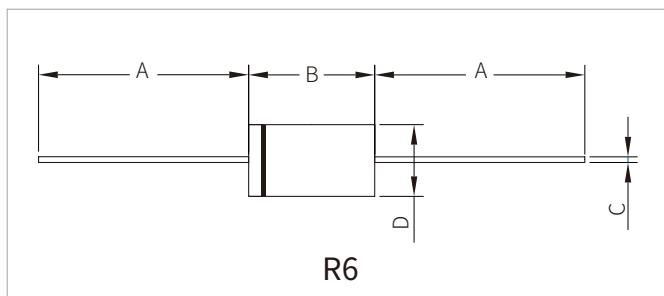
Fig.5 Typical Junction Capacitance


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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