

Kingtronics®

BYG20J

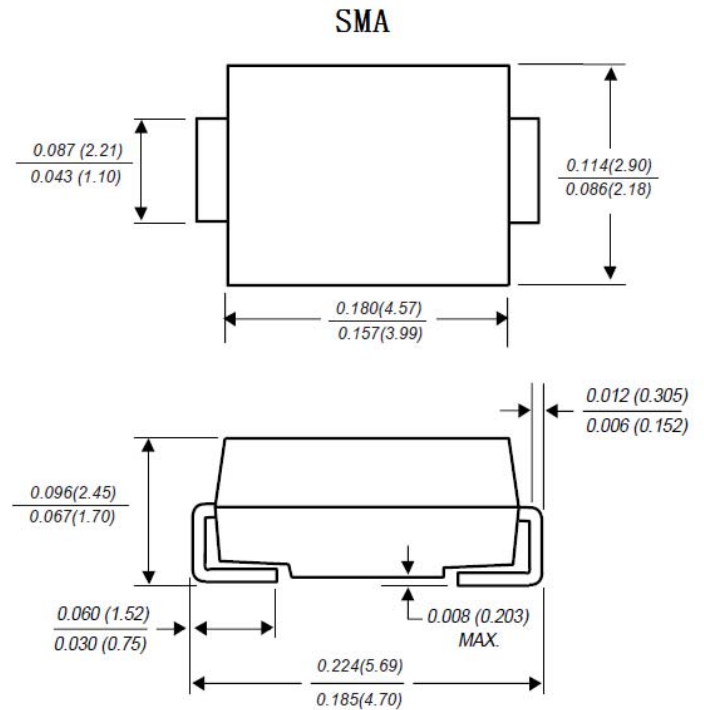
FEATURES AND BENEFITS

- Glass passivated junction chip.
- For surface mounted application
- Low forward voltage drop
- Low profile package
- Built-in stain relief, ideal for automatic Placement
- Fast switching for high efficiency
- High temperature soldering:
260°C/10 seconds at terminals
- Plastic material used carries Underwriters Laboratory Classification 94V-0
- Meet MSL level 1, per J-STD-020D, lead free maximum peak of 260°C

MECHANICAL DATA

- Case: Molded plastic
- Terminal: Pure tin plated, lead free
- Polarity: Indicated by cathode band

1.5 AMPS High Efficient Surface Mount Rectifiers



Dimensions in inches and (millimeters)

Kingtronics® International Company

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Kingtronics®**BYG20J****MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Ratings at 25 °C ambient temperature unless otherwise specified

Parameter	Symbol	BYG20J	UNITS
Maximum Repetitive Peak Reverse Voltage	VRRM	600	V
Maximum RMS Voltage	VRMS	420	V
Maximum DC Blocking Voltage	VDC	600	V
Maximum Average Forward Rectified Current	IF(AV)	1.5	A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	IFSM	30	A
Maximum Instantaneous @ 1.0 A	VF	1.3	V
Forward Voltage (Note 1) @ 1.5 A		1.4	
Maximum Reverse Current @ Rated VR TA=25 °C	IR	10	uA
TA=100 °C		100	
Pulse energy in avalanche mode, non repetitive (Inductive load switch off) TA=25°C, L=120mH	ERSM	20	mJ
Maximum Reverse Recovery Time (Note 2)	Trr	75	nS
Typical Thermal Resistance	R θ jA	100	°C /W
Operating Temperature Range	TJ	- 55 to + 150	°C
Storage Temperature Range	TSTG	- 55 to + 150	°C

Note 1: Pulse Test with PW=300 usec, 1% Duty Cycle

Note 2: Reverse Recovery Test Conditions: IF=0.5A, IR=1.0A, IRR=0.25A

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FIG. 1 FORWARD CURRENT DERATING CURVE

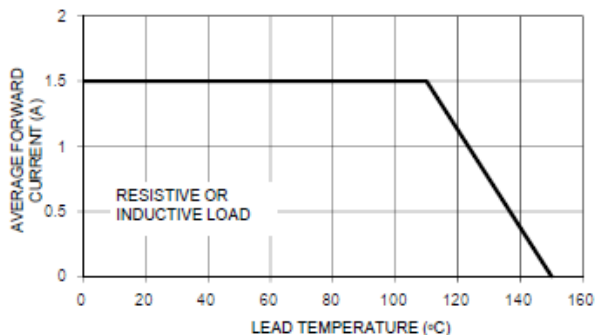


FIG. 2 TYPICAL REVERSE CHARACTERISTICS

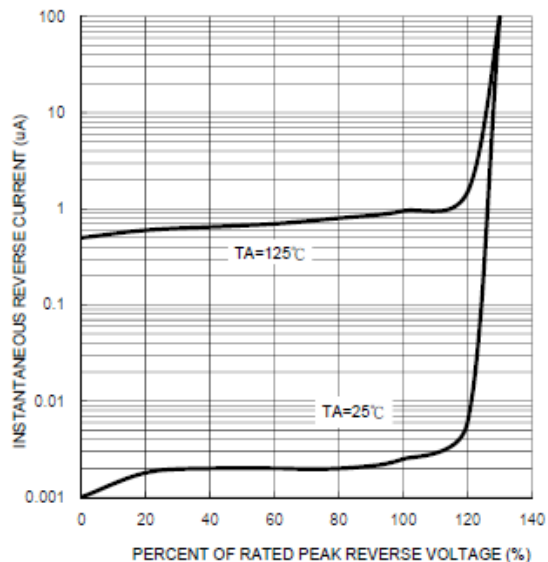


FIG. 3 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

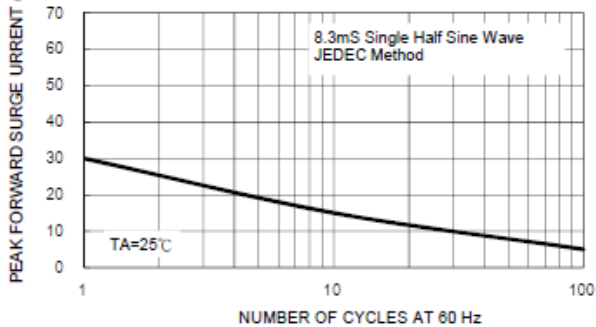


FIG. 5 TYPICAL FORWARD CHARACTERISTICS

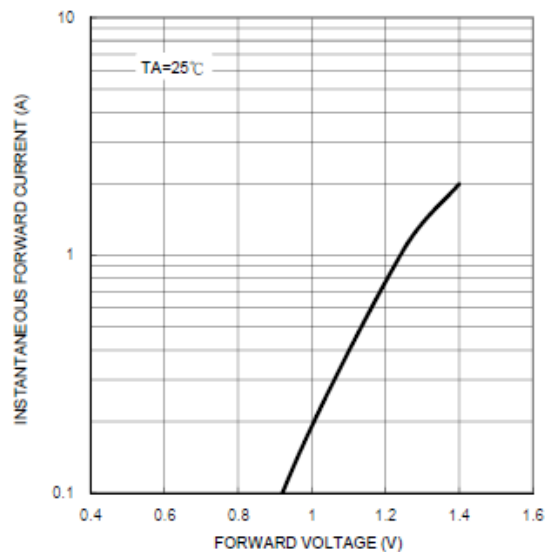


FIG. 4 TYPICAL JUNCTION CAPACITANCE

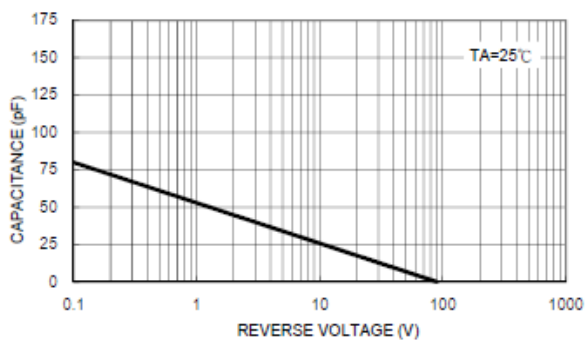
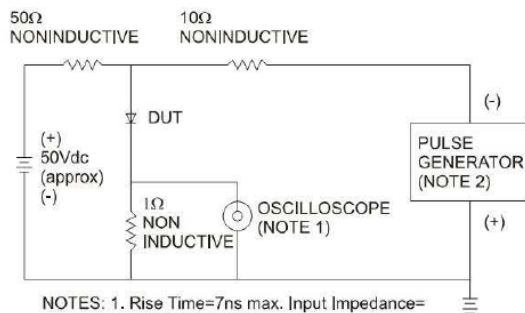
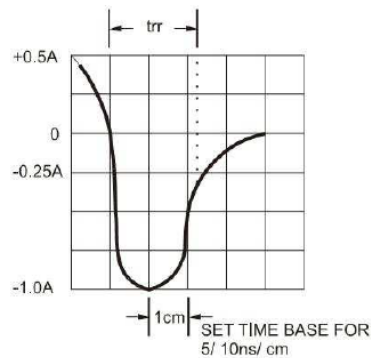


FIG. 6- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM



NOTES: 1. Rise Time=7ns max. Input Impedance=1 megohm 22pf
 2. Rise Time=10ns max. Source Impedance=50 ohms



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