KEEN SIDE electronics

10BQ020 THRU 10BQ200
SS20 THRU SS220

Surface Mount Schottky Barrier Rectifier
Reverse Voltage - 20 to 200V
Forward Current - 2.0A

FEATURES
- Metal silicon junction, majority carrier conduction
- For surface mounted applications
- Low power loss, high efficiency
- High forward surge current capability
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode

Top View

Simplified outline SMB and symbol

MECHANICAL DATA
- Case : SMB
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight : 0.095g / 0.003oz

Absolute Maximum Ratings and Electrical characteristics

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

Parameter	Symbols	10BQ020 SS22	10BQ040 SS24	10BQ060 SS26	10BQ080 SS28	10BQ100 SS210	10BQ120 SS212	10BQ150 SS215	10BQ200 SS220	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	20	40	60	80	100	120	150	200	V
Maximum RMS voltage	V_{RMS}	14	28	42	56	70	84	105	140	V
Maximum DC Blocking Voltage	V_{DC}	20	40	60	80	100	120	150	200	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	2.0								A
Peak Forward Surge Current,8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	55				45				A
Max Instantaneous Forward Voltage at 2 A	V_F	0.55		0.70		0.85		0.95		V
Maximum DC Reverse Current T_a = 25C at Rated DC Reverse Voltage T_a =100C	I_R	0.5 5			0.3 3					mA
Typical Junction Capacitance	C_j	220			110					pF
Typical Thermal Resistance	$R_{\theta A}$	60								°C/W
Operating Junction Temperature Range	T_j	-55 ~ +125								°C
Storage Temperature Range	T_{stg}	-55 ~ +150								°C

Fig.1 Forward Current Derating Curve

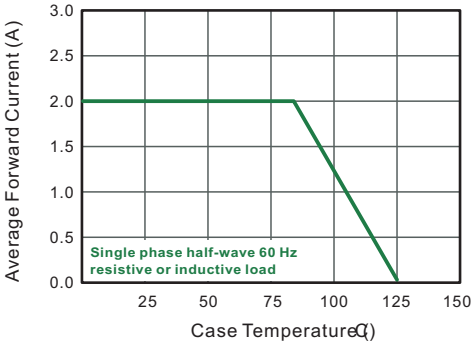


Fig.2 Typical Reverse Characteristics

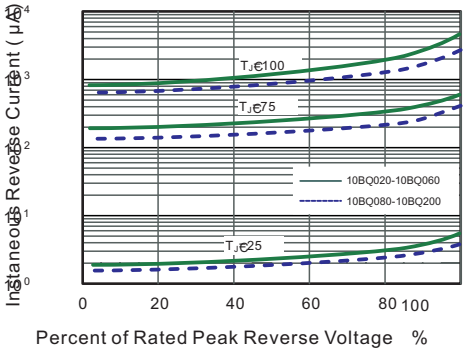


Fig.3 Typical Forward Characteristic

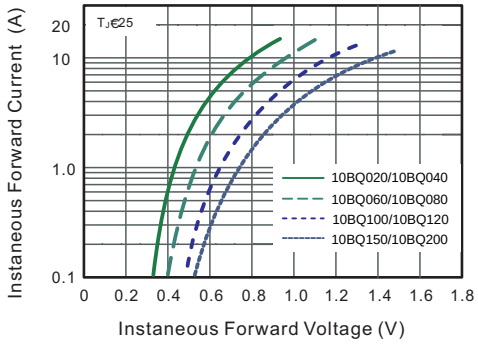


Fig.4 Typical Junction Capacitance

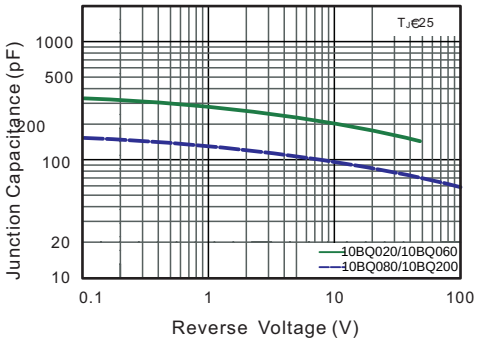


Fig.5 Maximum Non-Repetitive Peak Forward Surage Current

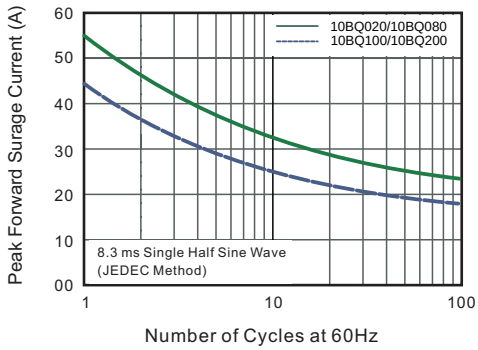
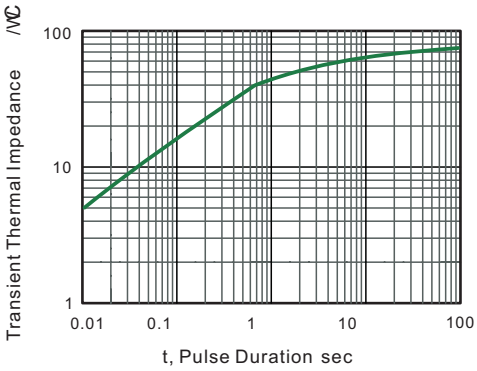
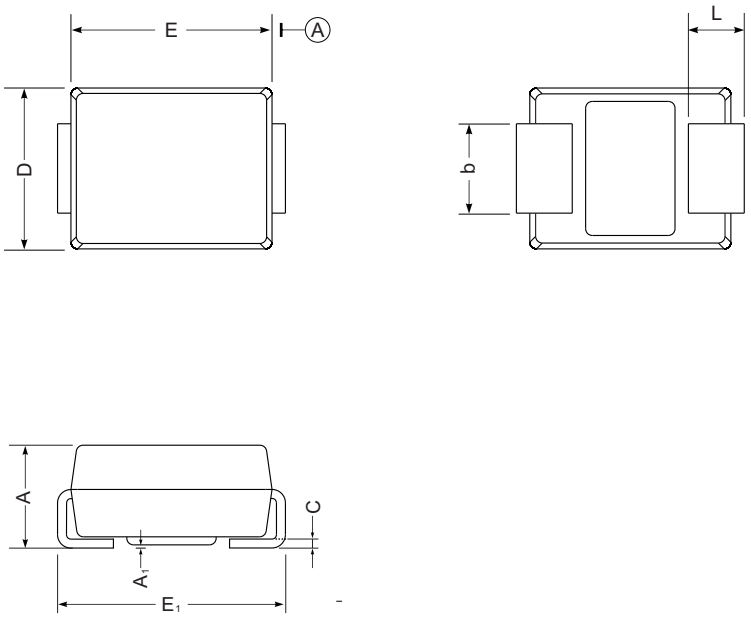


Fig.6- Typical Transient Thermal Impedance



PACKAGE OUTLINE

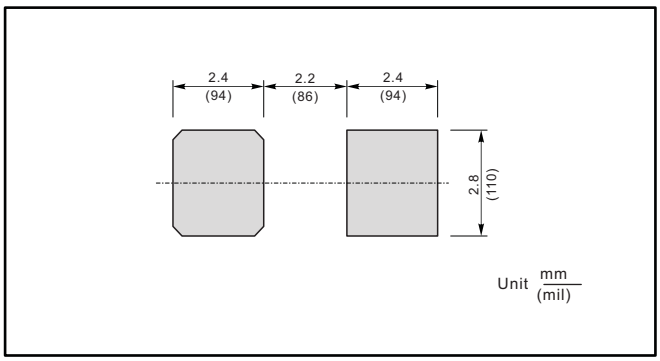
Plastic surface mounted package; 2 leads



SMB mechanical data

UNIT		A	E	D	E_1	A_1	L	C	b
mm	max	2.44	4.70	3.94	5.59	0.20	1.5	0.305	2.2
	min	2.13	4.06	3.3	5.08	0.05	0.8	0.152	1.9
mil	max	96	185	155	220	7.9	59	12	87
	min	84	160	130	200	2.0	32	6	75

The recommended mounting pad size



Marking

Type number	Marking code
10BQ020	SS22
10BQ040	SS24
10BQ060	SS26
10BQ080	SS28
10BQ100	SS210
10BQ120	SS212
10BQ150	SS215
10BQ200	SS220