SBR10100
VOLTAGE 100 V
10.0 Amp Schottky Barrier Rectifiers

SECOS
Elektronische Bauelemente

RoHS Compliant Product
A suffix of "-C" specifies halogen free

TO-220
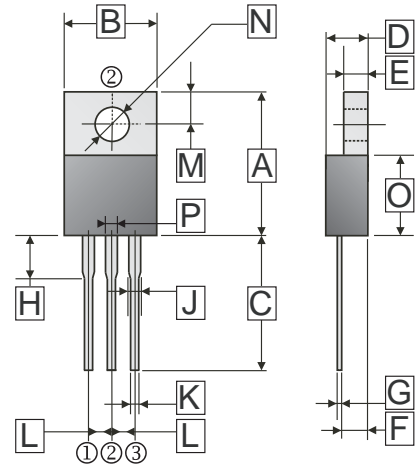
Dimensions in millimeters

PIN 1
PIN 3
CASE PIN 2

FEATURES

- Low forward voltage drop
- High current capability
- High reliability
- High surge current capability
- Epitaxial construction

MECHANICAL DATA

- Case: Molded plastic
- Epoxy: UL94V-0 rate flame retardant
- Lead: Lead solderable per MIL-STD-202 method 208 guaranteed
- Polarity: As Marked
- Mounting position: Any
- Weight: 1.93 grams (approximate)
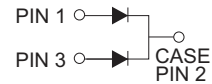
REF.	Millimeter Min.	Millimeter Max.	REF.	Millimeter Min.	Millimeter Max.
A	14.22	16.51	J	1.09	1.78
B	9.65	10.67	K	0.38	1.02
C	12.50	14.75	L	2.39	2.69
D	3.56	4.90	M	2.50	3.43
E	0.51	1.45	N	3.10	4.09
F	2.03	2.92	O	8.38	9.65
G	0.31	0.76	P	0.89	1.45
H	4.93 (TYP)				

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating 25°C ambient temperature unless otherwise specified.
Single phase half wave, 60Hz, resistive or inductive load.
For capacitive load, de-rate current by 20%.

TYPE NUMBER		SYMBOL	SBR10100	UNITS
Maximum Recurrent Peak Reverse Voltage		V_{RRM}	100	V
Working Peak Reverse Voltage		V_{RSM}	100	V
Maximum DC Blocking Voltage		V_{DC}	100	V
Maximum Average Forward Rectified Current	Per Leg	I_F	5	A
	Per Device		10	
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)		I_{FSM}	130	A
Maximum Instantaneous	$I_F = 5$ A, $T_A = 25°C$, per leg	V_F	0.82	V
Forward Voltage	$I_F = 5$ A, $T_A = 125°C$, per leg		0.70	
Maximum DC Reverse Current	$T_A = 25°C$	I_R	0.05	mA
at Rated DC Blocking Voltage	$T_A = 100°C$		10	
Typical Junction Capacitance (Note 1)		C_J	350	pF
Typical Thermal Resistance (Note 2)		$R_{\theta JA}$	2.5	°C /W
		dv / dt	10000	V / μs
Operating Temperature Range T_J		T_J	-50 ~ +150	°C
Storage Temperature Range T_{STG}		T_{STG}	-65 ~ +175	°C

NOTES:
1. Measured at 1MHz and applied reverse voltage of 5.0V D.C.
2. Thermal Resistance Junction to Case.

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RATINGS AND CHARACTERISTIC CURVES (SBR10100)

Typical Forward Current Derating Curve
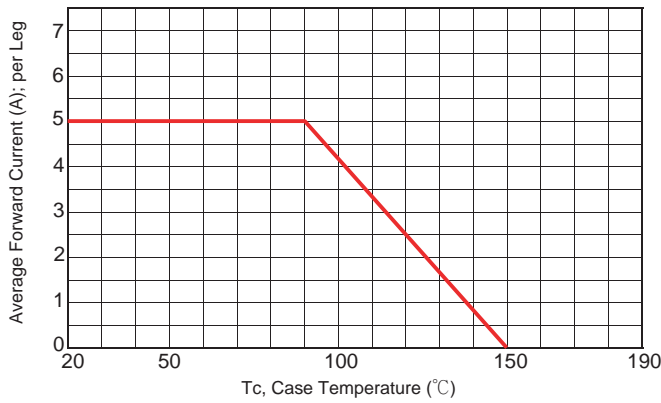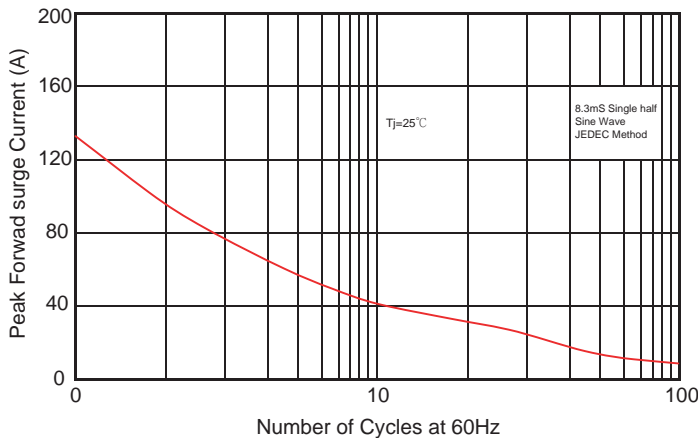

Typical Forward Characteristic

Typical Junction Capacitance
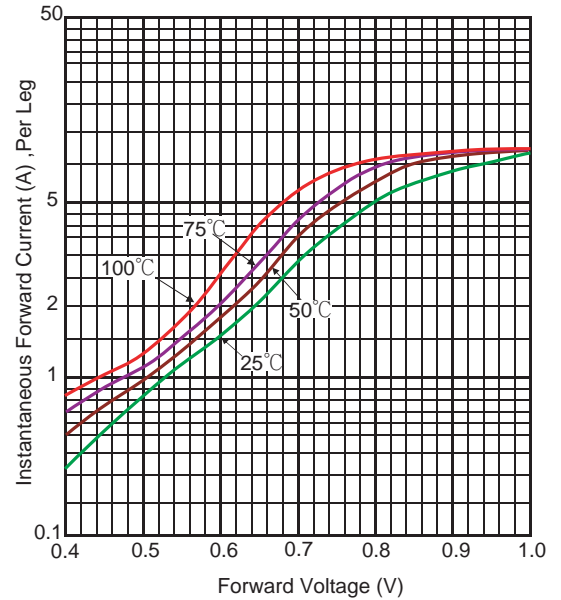
Typical Reverse Characteristic
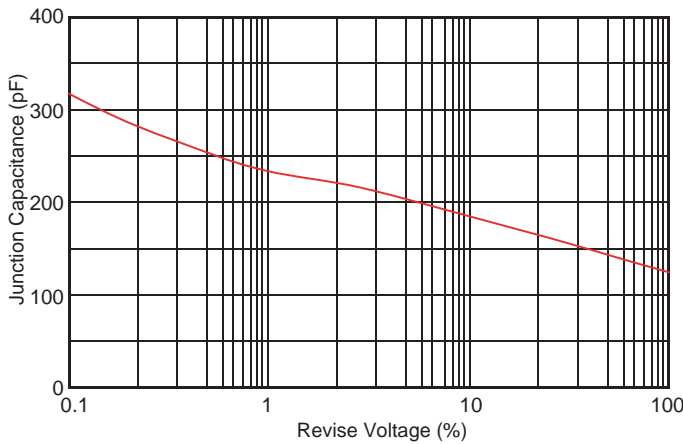
Maximum Non- Repetitive Forward Surge Current