Elektronische Bauelemente

SBR40100RF

VOLTAGE 100 V

40.0 Amp Schottky Barrier Rectifiers

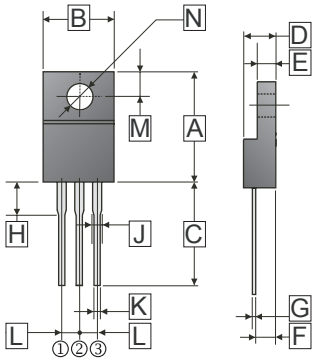
RoHS Compliant Product

A suffix of "-C" specifies halogen free

FEATURES

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

ITO-220

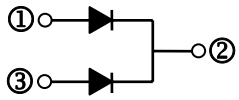


Dimensions in millimeters

REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	15.00	15.60	H	3.00	3.80
B	9.50	10.50	J	0.90	1.50
C	13.00 Min		K	0.50	0.90
D	4.30	4.70	L	2.34	2.74
E	2.50	3.10	M	2.50	2.90
F	2.40	2.80	N	ϕ3.1	ϕ3.4
G	0.30	0.70			

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: 1.98 grams (approximate)



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	SBR40100RF	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 Per Device	I_F	20 40	A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	280	A
Maximum Instantaneous Forward Voltage (Note 3) I_F = 20 A, T_A = 25°C, per leg I_F = 20 A, T_A = 125°C, per leg	V_F	0.87 0.70	V
Maximum DC Reverse Current at Rated DC Blocking Voltage T_A = 25°C T_A = 125°C	I_R	0.3 20	mA
Typical Junction Capacitance (Note 1)	C_J	380	pF
Typical Thermal Resistance (Note 2)	$R_{\theta JC}$	4.5	°C /W
Voltage Rate Of Chance (Rated V_R)	dv / dt	10000	V / μs
Operating Temperature Range T_J	T_J	-50 ~ +150	°C
Storage Temperature Range T_{STG}	T_{STG}	-65 ~ +150	°C

NOTES:

1. Measured at 1MHz and applied reverse voltage of 5.0V D.C.
2. Thermal Resistance Junction to Case
3. Pulse test: 300uS pulse width, 1% duty cycle.

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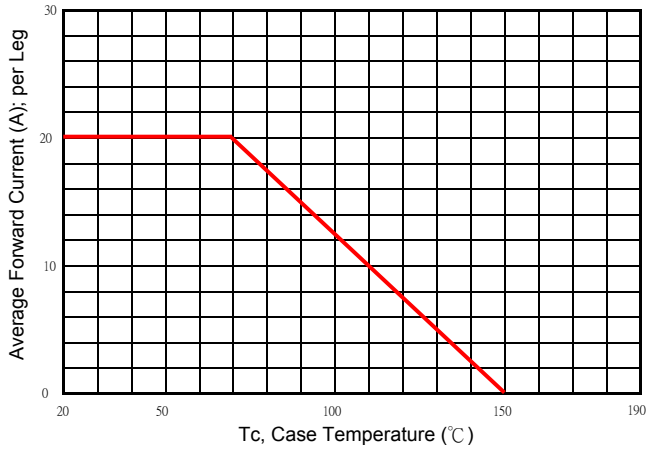
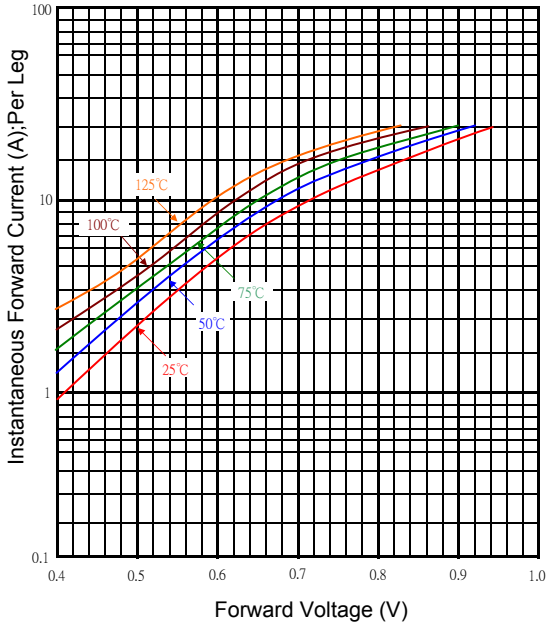
RATINGS AND CHARACTERISTIC CURVES

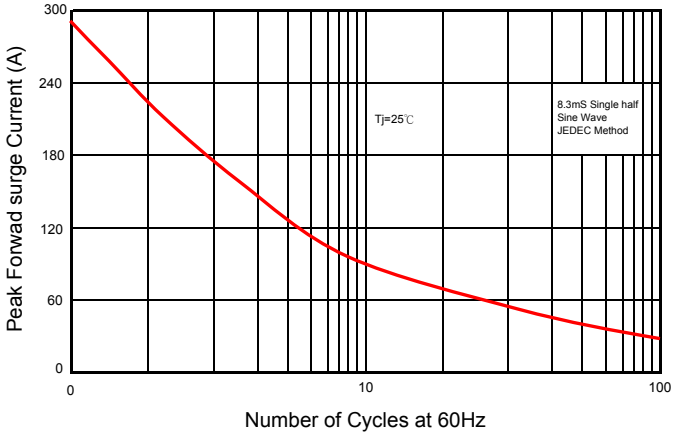
Typical Forward Current Derating Curve



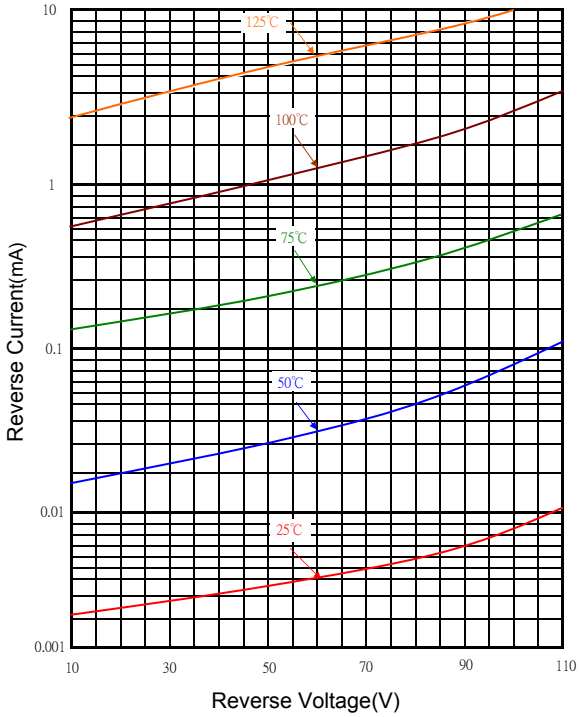
Typical Forward Characteristic



Maximum Non- Repetitive Forward Surge Current



Typical Reverse Characteristic



Typical Junction Capacitance