Elektronische Bauelemente

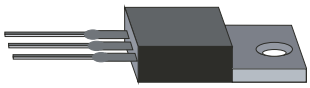
SBR3045R

VOLTAGE 45 V

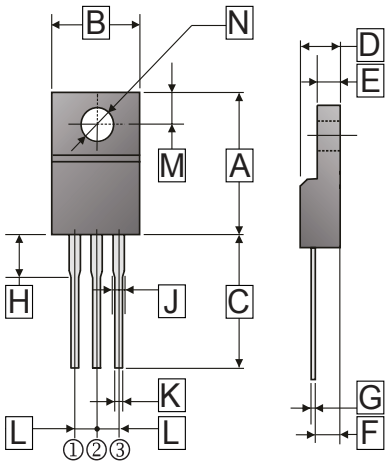
30.0 Amp Schottky Barrier Rectifiers

RoHS Compliant Product

A suffix of "-C" specifies halogen free



TO-220



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			

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)

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	SBR3045R	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	45	V
Working Peak Reverse Voltage	V_{RSM}	45	V
Maximum DC Blocking Voltage	V_{DC}	45	V
Maximum Average Forward Rectified Current Per Leg Per Device	I_F	15 30	A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	180	A
Maximum Instantaneous Forward Voltage I_F = 15 A, T_A = 25°C, per leg I_F = 15 A, T_A = 125°C, per leg	V_F	0.57 0.52	V
Maximum DC Reverse Current at Rated DC Blocking Voltage(Note3) T_A = 25°C T_A = 100°C	I_R	0.5 12	mA
Typical Junction Capacitance (Note 1)	C_J	2400	pF
Typical Thermal Resistance (Note 2)	$R_{\theta JC}$	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.
3. Pulse Test: Pulse Width =300uS, Duty Cycle<=2%

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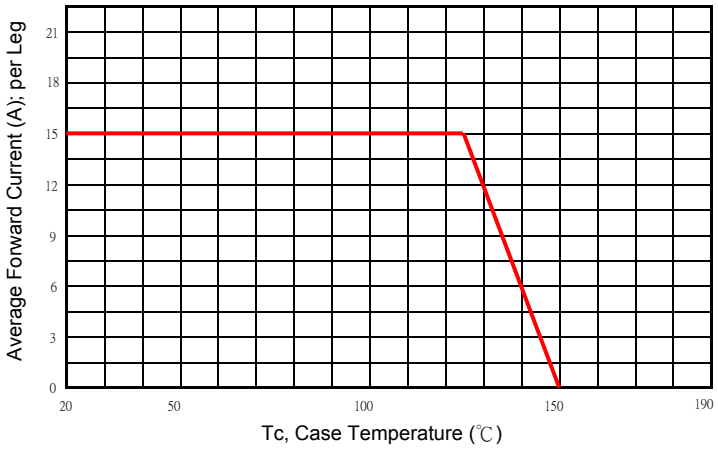
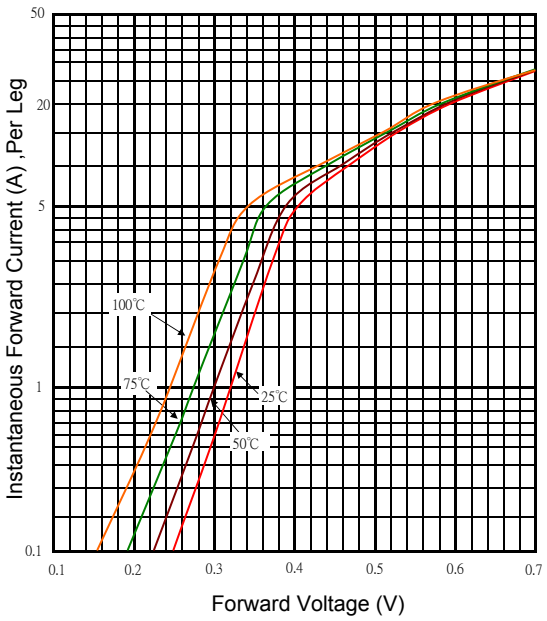
RATINGS AND CHARACTERISTIC CURVES (SBR3045R)

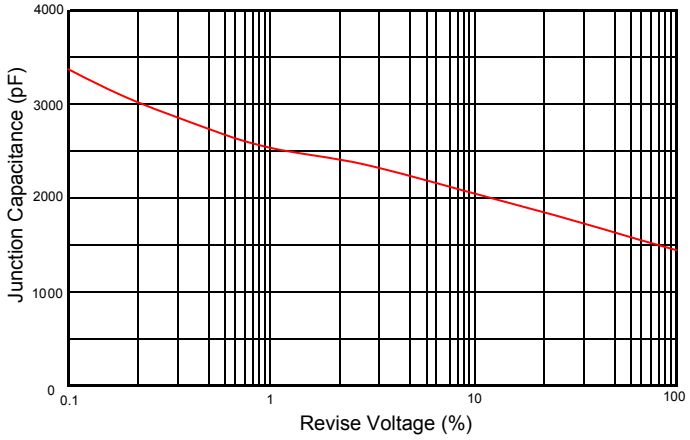
Typical Forward Current Derating Curve



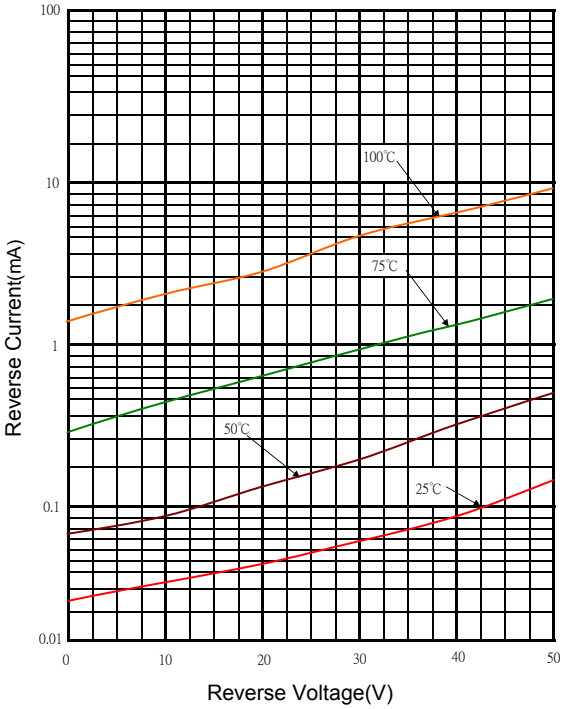
Typical Forward Characteristic



Typical Junction Capacitance



Typical Reverse Characteristic



Maximum Non- Repetitive Forward Surge Current