Elektronische Bauelemente

SBR2045F

VOLTAGE 45V

20.0 Amp Schottky Barrier Rectifiers

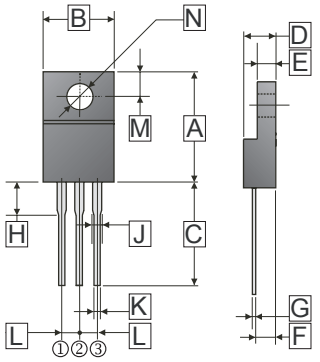
RoHS Compliant Product

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

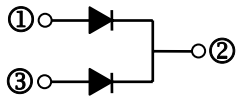


Dimensions in millimeters

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 g (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%.

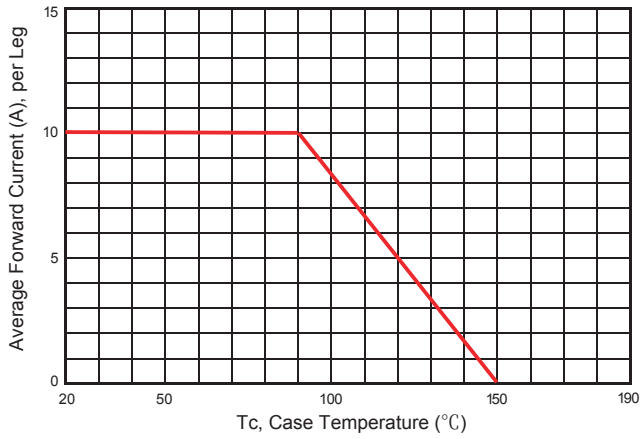
TYPE NUMBER		SYMBOL	SP2045F	UNITS
Maximum Recurrent Peak Reverse Voltage		V_{RRM}	45	V
Working Peak Reverse Voltage		V_{RSM}	45	V
Maximum DC Blocking Voltage		V_{DC}	45	V
Maximum Average Forward Rectified Current	(Per Leg) (Per Device)	I_F	10 20	A
Peak Forward Surge Current, 8.3 ms single half sine-wave Superimposed on rated load (JEDEC method)		I_{FSM}	180	A
Maximum Instantaneous Forward Voltage	(I_F = 10.0 A, T_A = 25°C, per leg) (I_F = 10.0 A, T_A = 125°C, per leg)	V_F	0.57 0.53	V
Maximum DC Reverse Current at Rated DC Blocking Voltage	T_A=25°C T_A=100°C	I_R	0.30 15	mA
Typical Junction Capacitance (Note 1)		C_J	450	pF
Typical Thermal Resistance (Note 2)		$R_{\theta JA}$	4.0	°C /W
Voltage Rate of Chance (Rated V_R)		dv/dt	10000	V / μs
Operating Temperature Range		T_J	-50 ~ +150	°C
Storage Temperature Range		T_{STG}	-65 ~ +150	°C

NOTES:

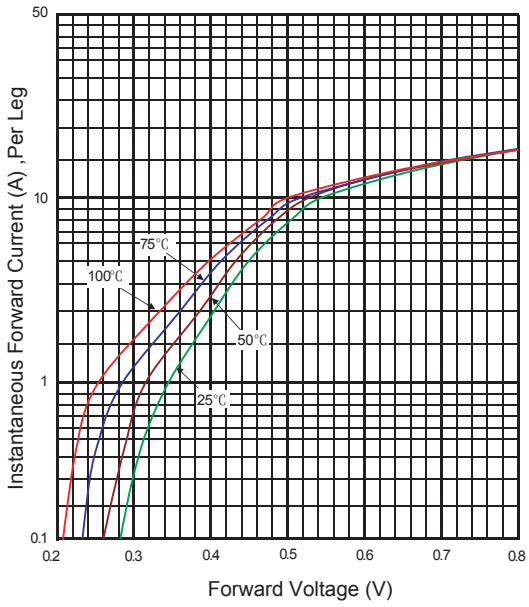
1. Measured at 1MHz and applied reverse voltage of 5.0V D.C.
2. Thermal Resistance Junction to Case.

RATINGS AND CHARACTERISTIC CURVES (SP2045F)

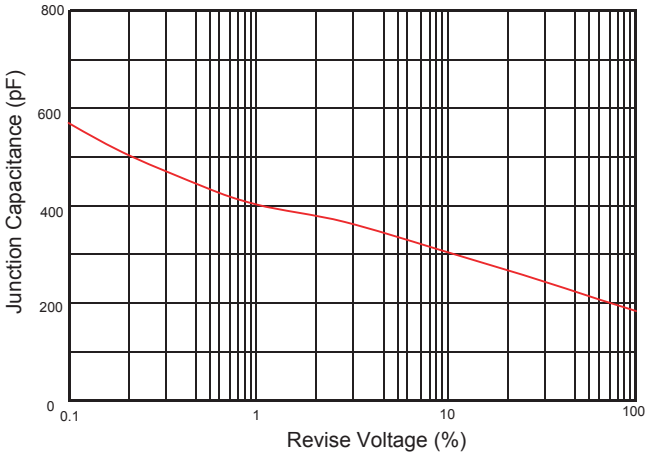
Typical Forward Current Derating Curve



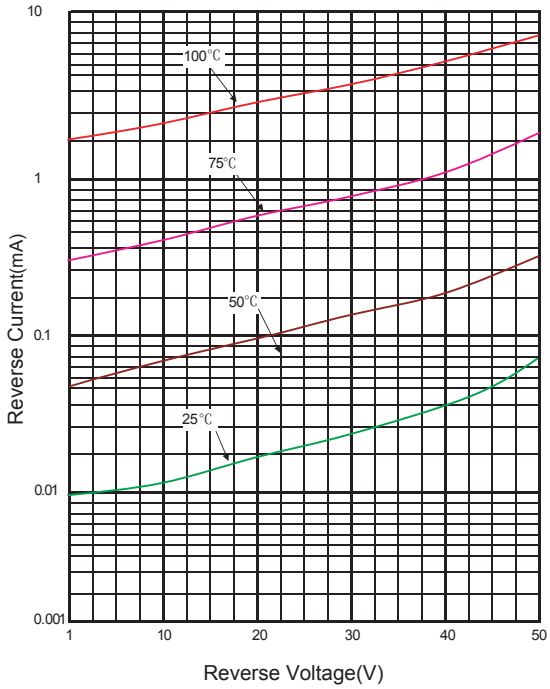
Typical Forward Characteristic



Typical Junction Capacitance



Typical Reverse Characteristic



Maximum Non- Repetitive Forward Surge Current