Elektronische Bauelemente

SBR3045I

Voltage 45 V

30.0 Amp Schottky Barrier Rectifiers

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

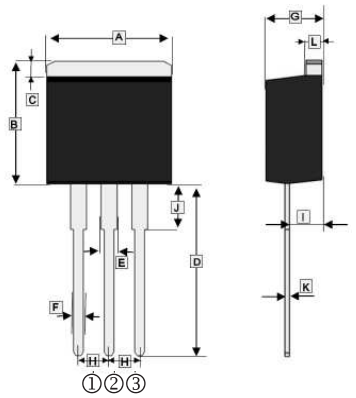
FEATURES

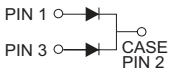
- Low forward voltage drop
- High current capability
- High reliability
- High surge current capability
- Epitaxial construction

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

TO-262 (I^2-PACK)





REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	10.0	10.31	G	4.47	4.7
B	10.0	10.5	H	2.54 BSC	
C	1.27	1.4	I	2.5	2.9
D	13.7	14.1	J	4.0	4.2
E	1.2	1.4	K	0.25	0.35
F	0.68	0.91	L	1.15	1.37

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%.)

Parameter		Symbol	Part Number	Unit
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	I_F	15	A
	Per Device		30	
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	V_F	0.57	V
	I_F = 15 A, T_A = 125°C, per leg		0.52	
Maximum DC Reverse Current at Rated DC Blocking Voltage [3]	T_A = 25°C	I_R	0.5	mA
	T_A = 100°C		12	
Typical Junction Capacitance [1]		C_J	2400	pF
Typical Thermal Resistance [2]		$R_{\theta JC}$	6	°C / W
Voltage Rate Of Chance (Rated VR)		dv / dt	10000	V / µS
Operating and Storage Temperature Range T_J		T_J,T_{STG}	-50~150	°C

Notes:
1. Measured at 1MHz and applied reverse voltage of 5.0V D.C.
2. Thermal Resistance Junction to Case.
3. Pulse Test: Pulse Width≦300µS, Duty Cycle≦2%

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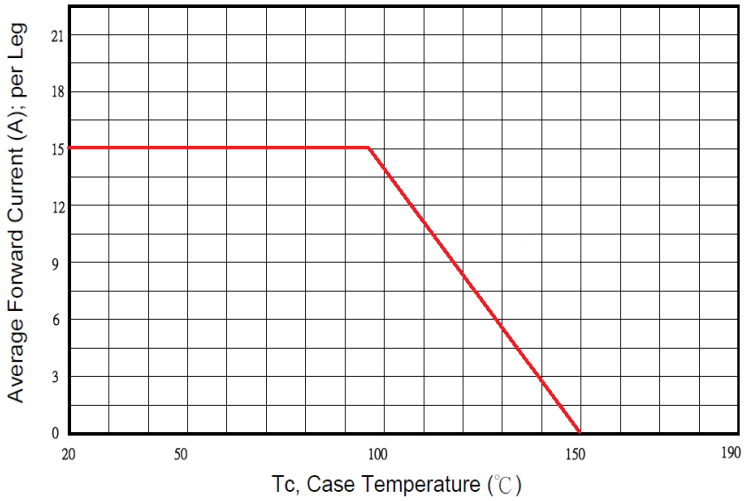
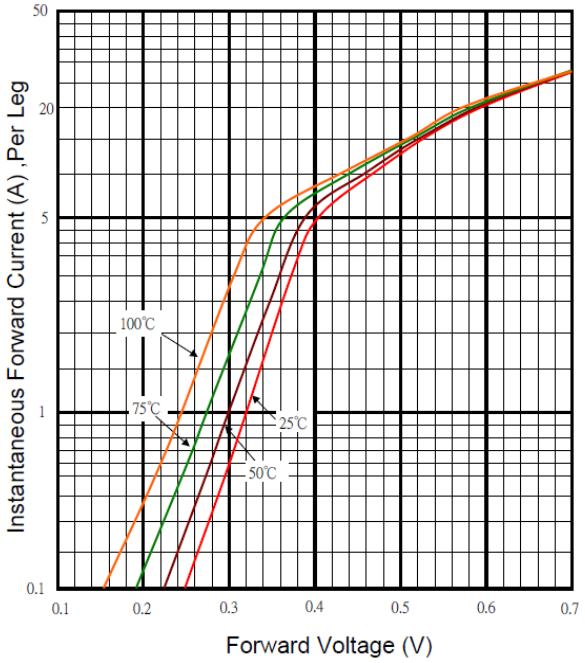
RATINGS AND CHARACTERISTIC CURVES

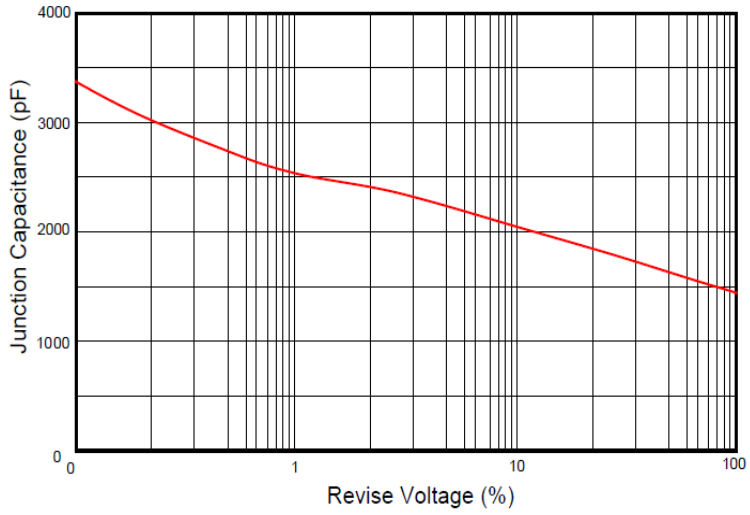
Typical Forward Current Derating Curve



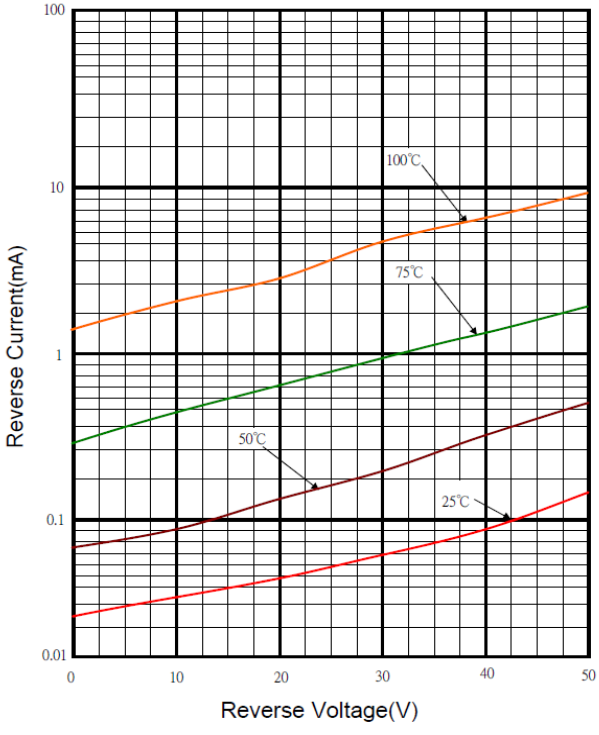
Typical Forward Characteristic



Typical Junction Capacitance



Typical Reverse Characteristic



Maximum Non- Repetitive Forward Surge Current