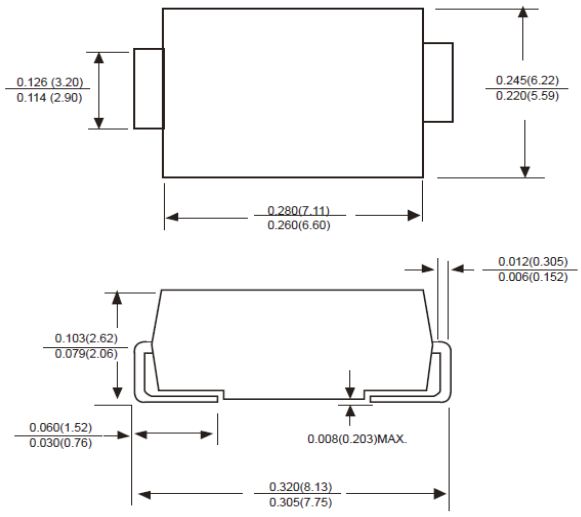
SK520C-HAF

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIERS

Reverse Voltage - 200 V
Forward Current - 5 A

DO-214AB



Dimensions in inches and (millimeters)

Features

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- For surface mounted applications
- Metal silicon junction,majority carrier conduction
- Low power loss,high efficiency
- Built-in strain relief,ideal for automated placement
- High forward surge current capability
- High temperature soldering guaranteed:
  260 C/10 seconds at terminals
- Halogen and Antimony Free(HAF), RoHS compliant

Mechanical Data

- **Case:** JEDEC DO-214AB molded plastic body
- **Terminals:** Plated axial leads, solderable per MIL-STD-750, Method 2026
- **Polarity:** Color band denotes cathode end
- **Mounting position:** Any

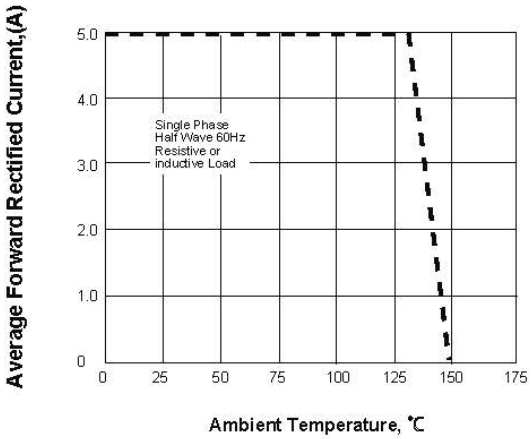
Maximum Ratings and Electrical Characteristics

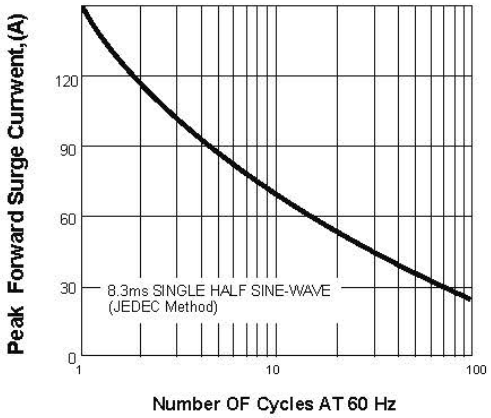
Ratings at 25℃ ambient temperature unless otherwise specified. Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derate by 20%.

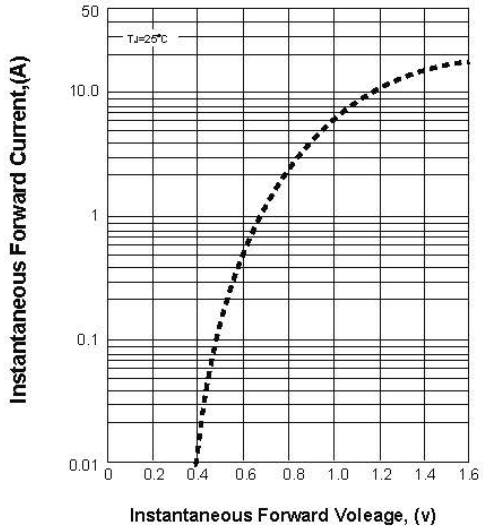
Parameter		Symbols	SK520C	Unit
		Marking	SK520C	-
Maximum Repetitive Peak Reverse Voltage		V_{RRM}	200	V
Maximum DC Blocking Voltage		V_{DC}	200	V
Maximum Average Forward Rectified Current		$I_{F(AV)}$	5	A
Peak Forward Surge Current 8.3 ms Half Sine-wave Superimposed on Rated Load (JEDEC method)		I_{FSM}	170	A
Maximum Instantaneous Forward Voltage [1] at I_F = 5 A		V_F	0.85	V
Maximum DC Reverse Current at Rated DC Blocking Voltage	T_A = 25℃ T_A = 100℃	I_R	0.2 2	mA
Thermal Resistance, Junction to Ambient [1]		$R_{\theta JA}$	50	℃/W
Typical junction capacitance [2]		C_J	200	pF
Operating and Storage Temperature Range		T_J ,T_{stg}	- 55 to + 125	℃

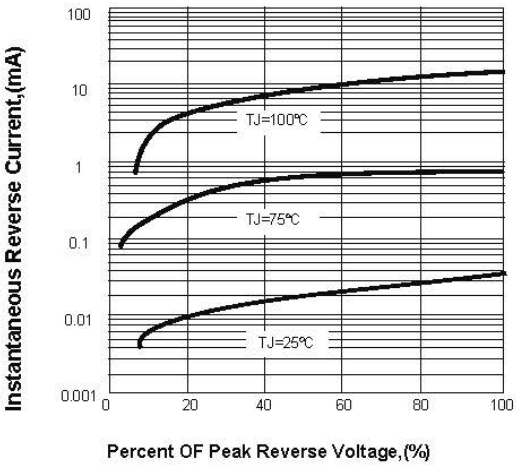
[1] P.C.B. mounted with 0.2x0.2″(5.0x5.0mm) copper pad areas

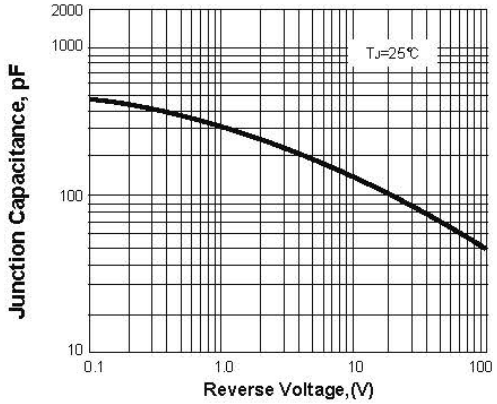
[2] Measured at 1MHz and applied reverse voltage of 4.0V D.C.

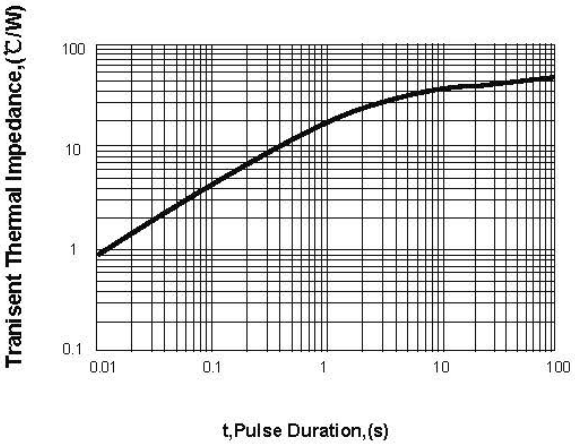

Average Forward Rectified Current,(A)
5.0
4.0
3.0
2.0
1.0
0
Single Phase
Half Wave 60Hz
Resistive or
inductive Load
0
25
50
75
100
125
150
175
Ambient Temperature, ℃


Peak Forward Surge Curwent,(A)
120
90
60
30
0
8.3ms SINGLE HALF SINE-WAVE
(JEDEC Method)
1
10
100
Number OF Cycles AT 60 Hz


Instantaneous Forward Current,(A)
50
10.0
1
0.1
0.01
TJ=25℃
0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
1.6
Instantaneous Forward Voleage, (v)


Instantaneous Reverse Current,(mA)
100
10
1
0.1
0.01
0.001
TJ=100℃
TJ=75℃
TJ=25℃
0
20
40
60
80
100
Percent OF Peak Reverse Voltage,(%)


Junction Capacitance, pF
2000
1000
100
10
TJ=25℃
0.1
1.0
10
100
Reverse Voltage,(V)


Tranisent Thermal Impedance,(℃/W)
100
10
1
0.1
0.01
0.1
1
10
100
t,Pulse Duration,(s)