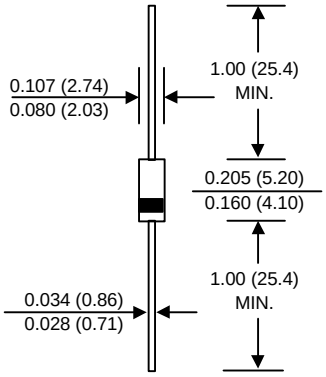
Certificate Number: Q10561 Certificate Number: E17276

SBO20 - SBOB0

SCHOTTKY BARRIER RECTIFIER DIODES

PRV : 20 - 100 Volts
I_O : 1.5 Amperes

DO - 41



Dimensions in inches and (millimeters)

FEATURES :

* High current capability
* High surge current capability
* High reliability
* High efficiency
* Low power loss
* Low forward voltage drop
* Low cost

MECHANICAL DATA :

* Case : DO-41 Molded plastic
* Epoxy : UL94V-O rate flame retardant
* Lead : Axial lead solderable per MIL-STD-202, Method 208 guaranteed
* Polarity : Color band denotes cathode end
* Mounting position : Any
* Weight : 0.339 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specified.
Single phase, half wave, 60 Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

RATING	SYMBOL	SB O20	SB O30	SB O40	SB O50	SB O60	SB O70	SB O80	SB O90	SB OB0	UNIT
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	20	30	40	50	60	70	80	90	100	Volts
Maximum RMS Voltage	V_{RMS}	14	21	28	35	42	49	56	63	70	Volts
Maximum DC Blocking Voltage	V_{DC}	20	30	40	50	60	70	80	90	100	Volts
Maximum Average Forward Current 0.375", 9.5mm Lead Length See Fig.1	$I_{F(AV)}$	1.5									Amp.
Peak Forward Surge Current, 8.3ms single half sine wave superimposed on rated load (JEDEC Method)	I_{FSM}	50									Amp.
Maximum Forward Voltage at I_F = 1.5 Amp. (Note 1)	V_F	0.5			0.7			0.79			Volt.
Maximum Reverse Current at Rated DC Blocking Voltage (Note 1)	I_R	0.5									mA
Junction Temperature Range	T_J	- 65 to + 125			- 65 to + 150						°C
Storage Temperature Range	T_{STG}	- 65 to + 150									°C

Notes :

(1) Pulse Test : Pulse Width = 300 µs, Duty Cycle = 2%.

UPDATE : SEPTEMBER 12, 1998

RATING AND CHARACTERISTIC CURVES (SBO20 - SBOB0)

FIG.1 - FORWARD CURRENT DERATING CURVE

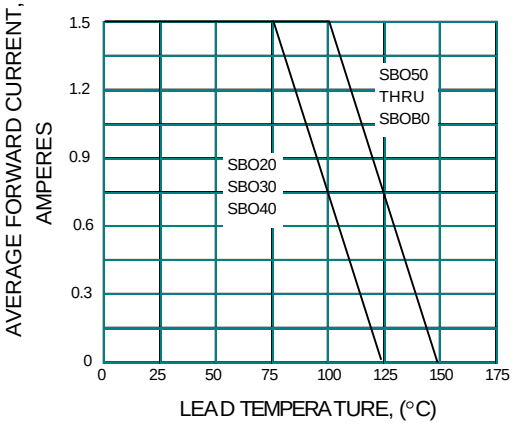


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

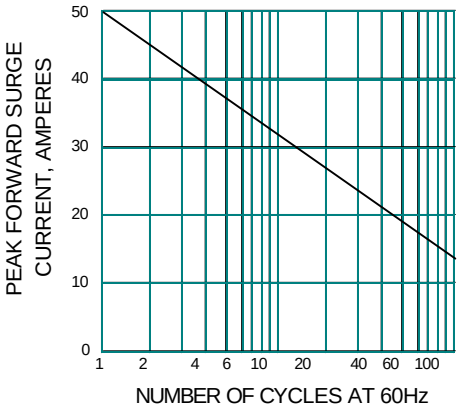


FIG.3 - TYPICAL FORWARD CHARACTERISTICS

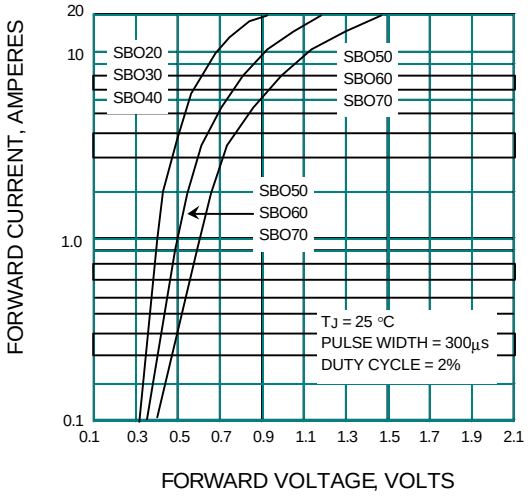
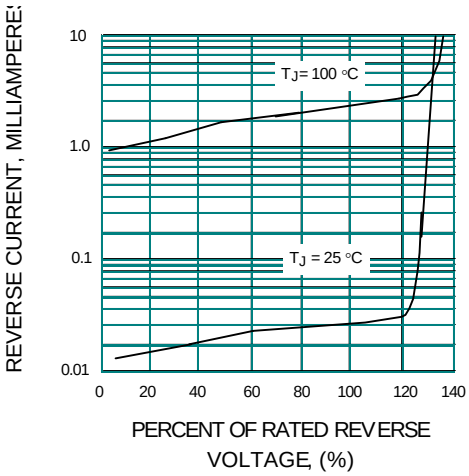



FIG.4 - TYPICAL REVERSE CHARACTERISTICS