



## Schottky Barrier Rectifier

### Features

- Low reverse leakage
- High forward surge current capacity
- High temperature soldering guaranteed:  
260°C/10 seconds, at terminal
- RoHS and REACH Compliance

### Mechanical Data

Case:	Transfer molded plastic
Polarity:	Color band denotes cathode end
Epoxy:	UL94V-0 rate flame retardant
Lead:	Plated axial lead, solderable per MIL-STD-202E method 208C
Mounting position:	Any
Weight:	0.0046 ounce, 0.116 gram

### Maximum Ratings ( $T_{Ambient}=25^{\circ}C$ unless noted otherwise)

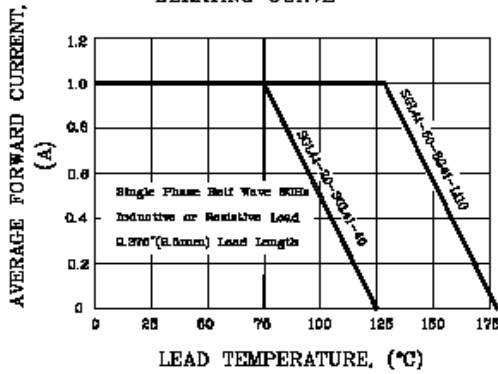
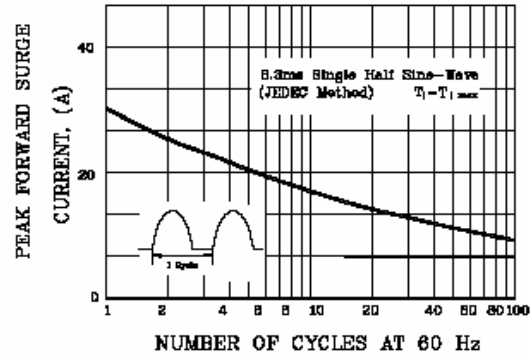
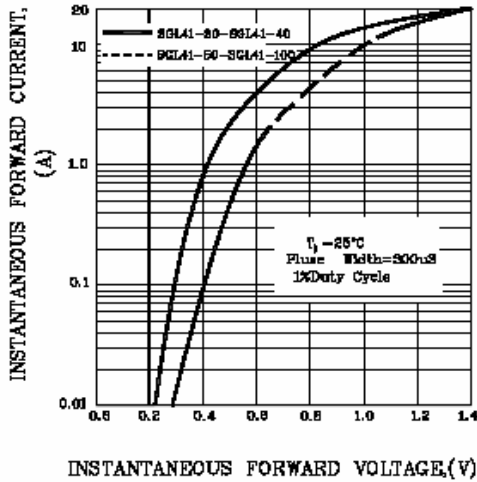
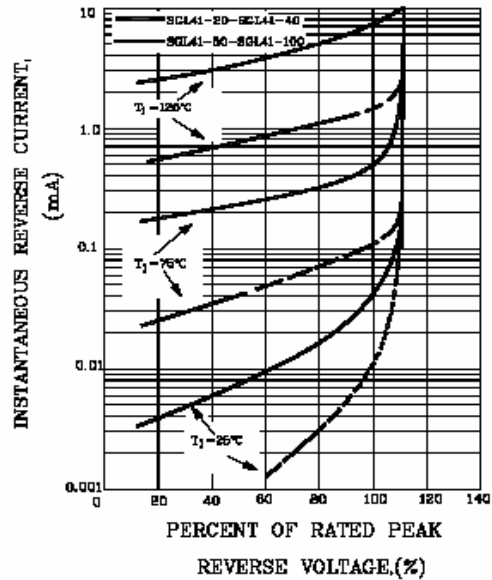
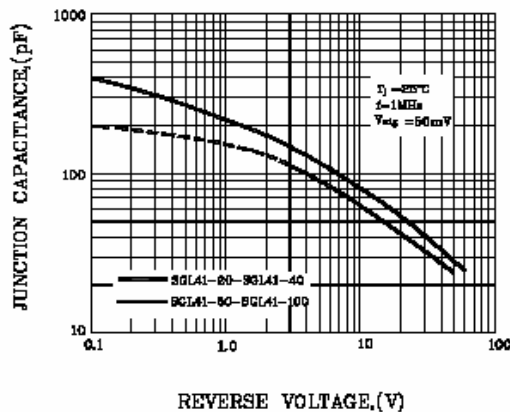
Symbol	Description	SGL41 20	SGL41 30	SGL41 40	SGL41 50	SGL41 60	SGL41 80	SGL41 100	Unit	Conditions
VRRM	Max Recurrent Peak Reverse Voltage	20	30	40	50	60	80	100	V	
VRMS	Max RMS Voltage	14	21	28	35	42	56	70	V	
VDC	Max DC Blocking Voltage	20	30	40	50	60	80	100	V	
I(AV)	Max Average Forward Rectified Current	1.0							A	TA see Fig 1
IFSM	Peak Forward Surge Current	30							A	JEDEC method
TJ,TSTG	Operating and Storage Temperature Range	-55 to +150, -55 to +150							°C	
Rθ-JA Rθ-JL	Typical Thermal Resistance	30 / 50							°C/W	Note 2

### Electrical Characteristics ( $T_{Ambient}=25^{\circ}C$ unless noted otherwise)

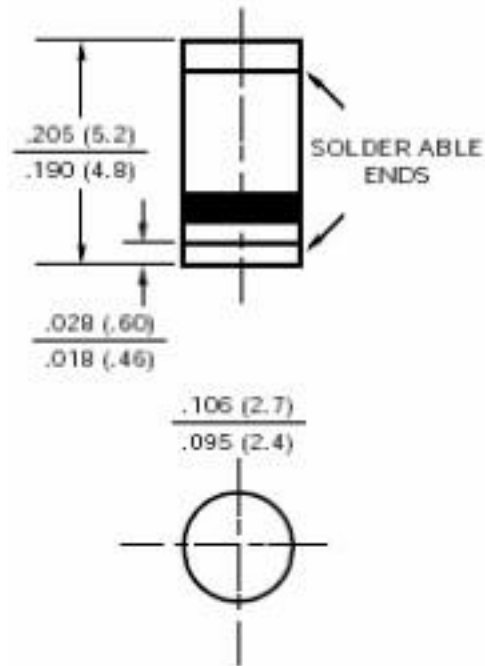
Symbol	Description	SGL41 20	SGL41 30	SGL41 40	SGL41 50	SGL41 60	SGL41 80	SGL41 100	Unit	Conditions
V <sub>F</sub>	Max Instantaneous Forward Voltage	0.55		0.75			0.85		V	1.0A
I <sub>R</sub>	Max DC Reverse Current at Rated DC Blocking Voltage	1.0							mA	TA=25°C
		10								TA=100°C
C <sub>J</sub>	Typical Junction Capacitance	110							pF	Measured at 1.0MHz / 4.0V

#### Note:

1. Pulse Test: 300µs pulse width 1% duty cycle
2. Thermal resistance with 0.24" x 0.24" (6mm x 6mm) copper pads for each terminal

**SGL41-20 ~ SGL41-100**
**RATINGS AND CHARACTERISTIC CURVES SGL41-20 THRU SGL41-100**
**FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE**

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

**FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**

**FIG.4-TYPICAL REVERSE CHARACTERISTICS**

**FIG.5-TYPICAL JUNCTION CAPACITANCE**


Dimensions in inches (mm)



MELF

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