

VOLTAGE RANGE: 20 - 60V

CURRENT: 1.0 A

Features

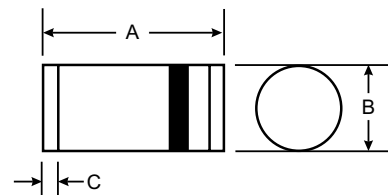
- For surface mounted applications
- Metal silicon junction, majority carrier conduction
- High surge capability
- Low power loss, high efficiency
- High current capability, low forward voltage drop
- For use in low voltage, high frequency inverters, free wheeling and polarity protection applications
- Guardring for overvoltage protection

High temperature soldering guaranteed:

250°C/10 seconds at terminals

Mechanical Data

- Case: DO-213AB/LL41
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Mounting Position: Any



LL41/ DO-213AB		
Dim	Min	Max
A	4.80	5.20
B	2.40	2.60
C	0.55 Nominal	
All Dimensions in mm		

Maximum Ratings and Electrical Characteristics T_A = 25°C unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Characteristic	Symbol	SGL41-20	SGL41-30	SGL41-40	SGL41-50	SGL41-60	Unit
Maximum repetitive peak reverse voltage	V _{RRM}	20	30	40	50	60	Volts
Maximum RMS voltage	V _{RMS}	14	21	28	35	42	Volts
Maximum DC blocking voltage	V _{DC}	20	30	40	50	60	Volts
Maximum average forward rectified current (SEE FIG. 1)	I(AV)	1.0					Amp
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	30.0					Amps
Maximum instantaneous forward voltage at 1.0A (NOTE 1)	V _F	0.50			0.70		Volts
Maximum reverse current T _A =25°C at rated DC blocking voltage (NOTE 1) T _A =100°C	I _R	0.5					mA
		10			5.0		
Typical junction capacitance (NOTE 2)	C _J	110			80.0		pF
Maximum thermal resistance (NOTE 4) (NOTE 3)	R _{θJA}	75.0					°C/W
	R _{θJT}	30.0					
Operating junction temperature range	T _J	-55 to +125			-55 to +150		°C
Storage temperature range	T _{STG}	-55 to +150					°C

NOTES:

(1) Pulse test: 300μs pulse width, 1% duty cycle

(2) Measured at 1 MHz and applied reverse voltage of 4.0 Volts

(3) Thermal resistance junction to terminal, 0.24 x 0.24" (6.0 x 6.0mm) copper pads to each terminal

(4) Thermal resistance junction to ambient, 0.24 x 0.24" (6.0 x 6.0mm) copper pads to each terminal

FIG. 1 - FORWARD CURRENT DERATING CURVE

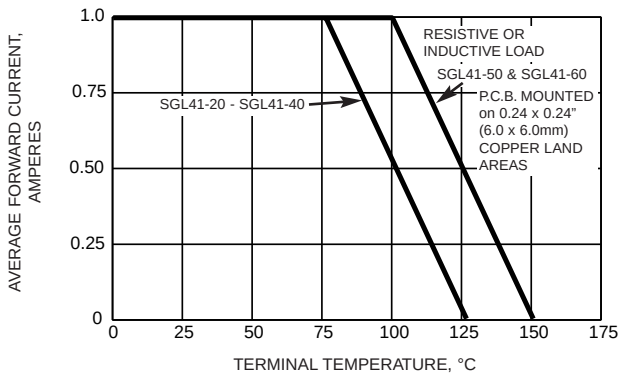


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

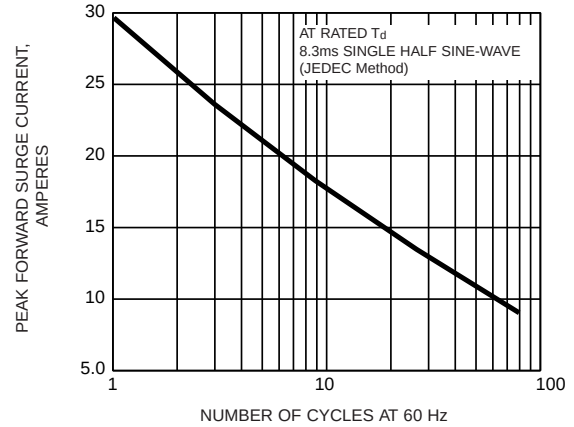


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

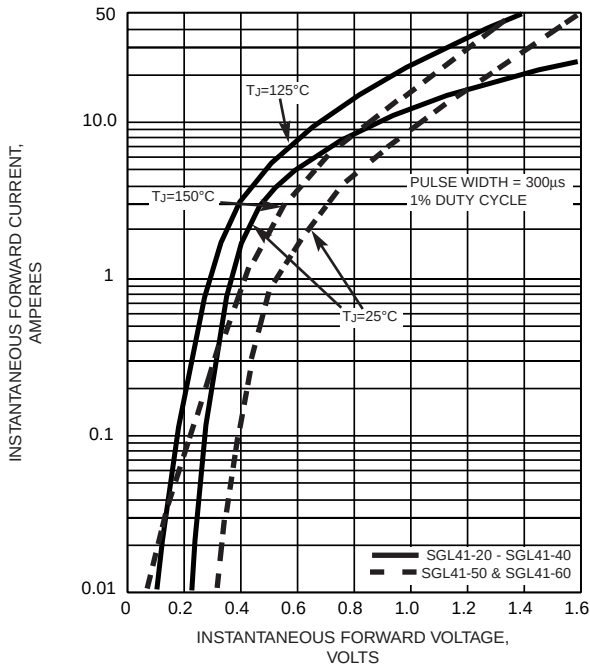


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

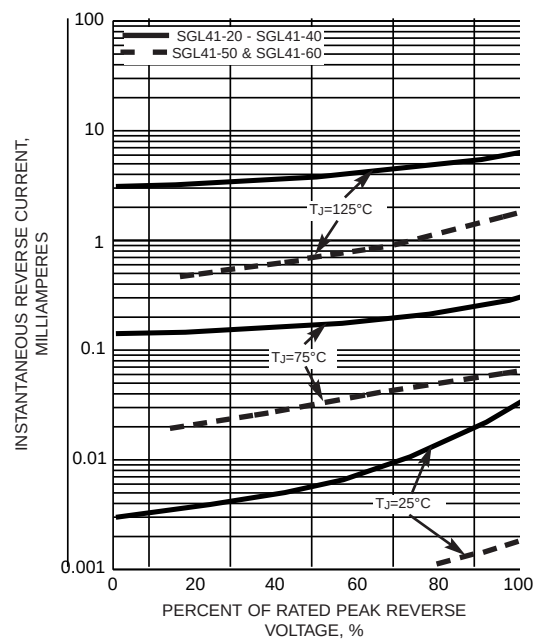


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

