



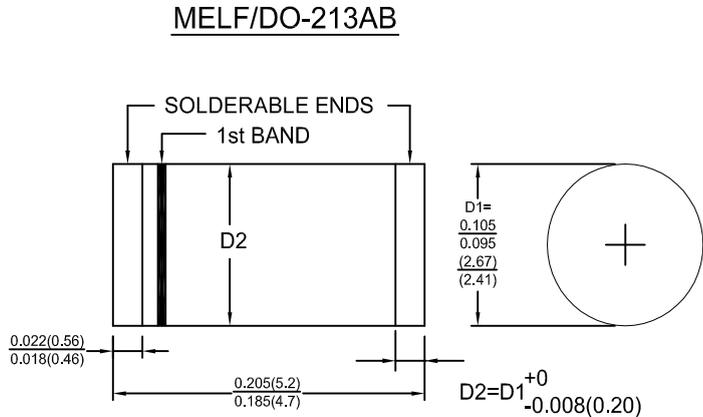
SURFACE MOUNT SCHOTTKY RECTIFIERS

FEATURES:

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

MECHANICAL DATA

Case : Molded plastic use UL 94V-0 recognized flame retardant epoxy
 Terminals : Solder plated, solderable per MIL-STD-750 Method 2026
 Polarity : Blue color band on body denotes cathode
 Mounting Position : Any
 Weight : 0.116 gram, 0.0046 ounce



1st band denotes type positive and (cathode)

Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

Characteristic	Symbol	SM5817	SM5818	SM5819	SGL41-	SGL41-	SGL41-	Units
		SGL41-20	SGL41-30	SGL41-40	50	60	100	
Maximum recurrent peak reverse voltage	V _{RRM}	20	30	40	50	60	100	Volts
Maximum RMS voltage	V _{RMS}	14	21	28	35	42	70	Volts
Maximum DC blocking voltage	V _{DC}	20	30	40	50	60	100	Volts
Maximum average forward rectified current	I _(AV)	1.0						Amps
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 drop at 1.0 A (NOTE 1)	V _F	0.5	0.55	0.60	0.7	8.5		Volts
Maximum instantaneous reverse current at rated DC blocking voltage (NOTE 1)	I _R	1.0						mA
		10			5.0			
Typical junction capacitance (NOTE 2)	C _J	110			80.0		pF	
Typical thermal resistance	R _{th-JA}	75.0						°C/W
	R _{th-JL}	30.0						
Operating junction temperature range	T _j	-55 to +150						°C
Storage temperature range	T _{stg}	-55 to +150						°C

NOTE :1.Pulse test: 300 us pulse width, 1% duty cycle
 2.Measured at 1 MHZ and applied reverse voltage of 4.0 voltage



RATINGS AND CHARACTERISTIC CURVES

FIG.1-DERATING CURVE FOR OUTPUT RECTIFIER CURRENT

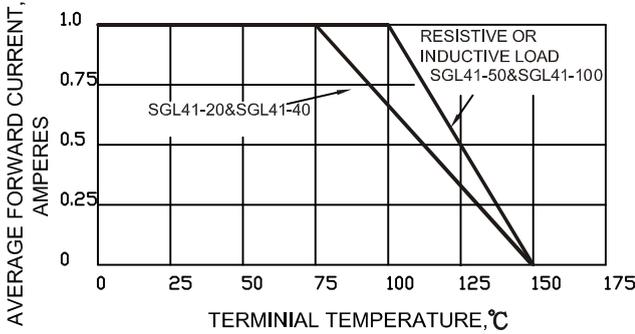


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

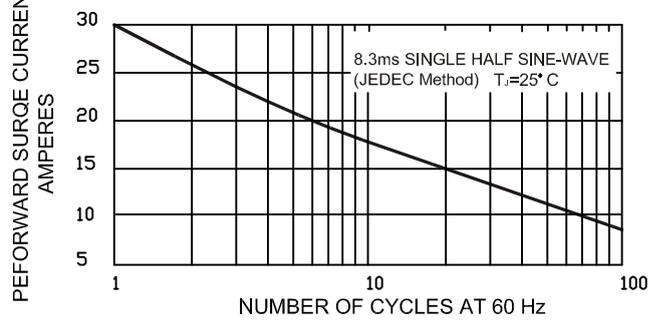


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

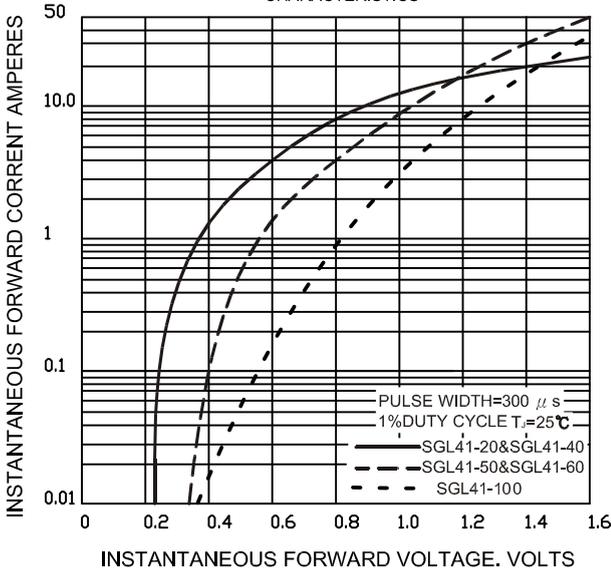


FIG.4-TYPICAL REVERSE CHARACTERISTICS

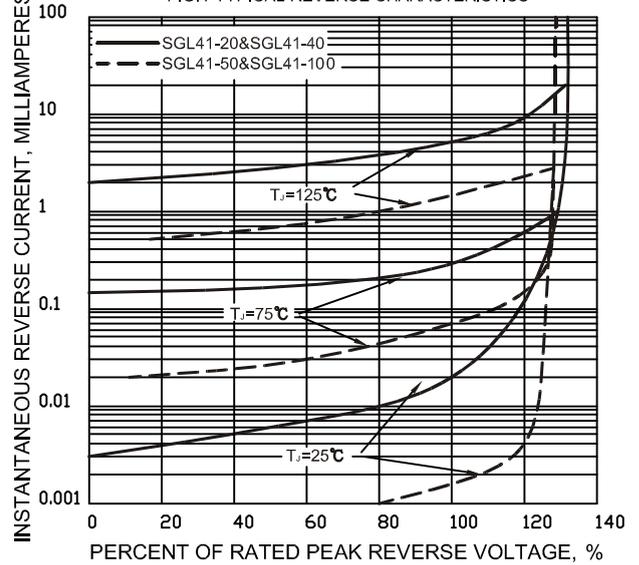
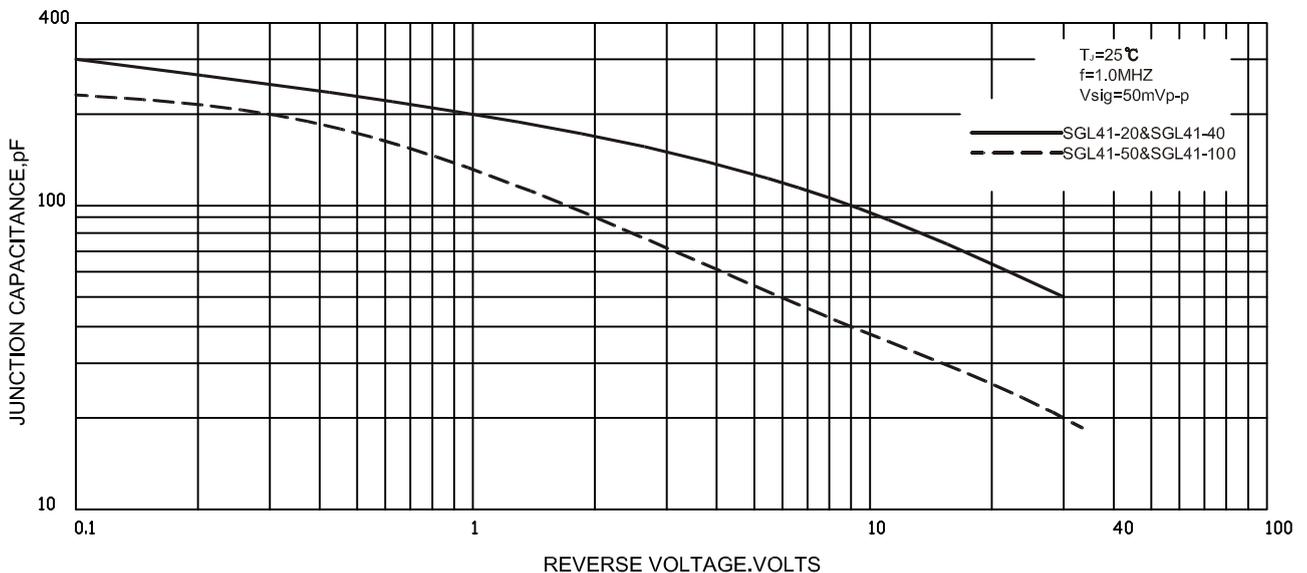


FIG.5-TYPICAL JUNCTION CAPACITANCE





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