DACO SEMICONDUCTOR CO., LTD.

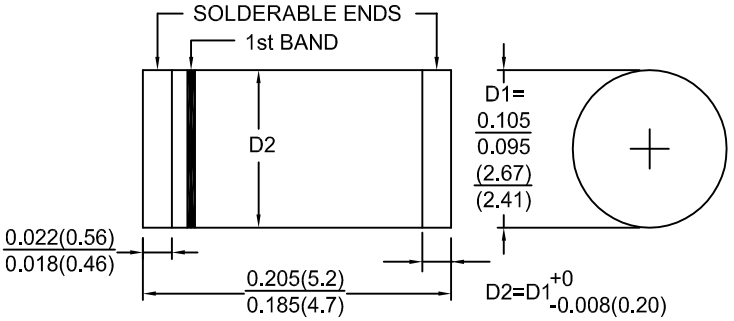
SM22 THRU SM26

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIERS

FEATURES:

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- For surface mounted applications
- Low profile package
- Built-in strain relief
- Metal silicon junction, majority carrier conduction
- Low power loss,high efficiency
- High current capability, low forward voltage drop
- High surge capability
- For use in low voltage high frequency inverters, free wheeling, and polarity protection applications
- Guard ring for overvoltage protection
- High temperature soldering quaranteed: 250℃/10 seconds at terminals

MELF / DO-213AB



1st band denotes type positive and (cathode)

Dimensions in inches and (millimeters)

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
Weight : 0.116 grams, 0.0046 ounce

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25℃ 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	SM 22	SM 23	SM 24	SM 25	SM 26	Units
Maximum recurrent 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 at TL(SEE FIG.1)	$I_{(AV)}$	2.0					Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load(JEDEC Method)	I_{FSM}	50.0					Amps
Maximum instantaneous forward voltage at 2.0 A(NOTE 1)	V_F	0.50	0.55		0.70		Volts
Maximum instantaneous reverse current at rated DC blocking voltage (NOTE 1) Ta=25℃ / Ta=100℃	I_R	0.5 / 20.0					mA
Maximum thermal resistance(NOTE 2)	R_{th-JA} / R_{th-JL}	55.0 / 17.0					℃/W
Operating junction temperature range	T_J	-65 to +150					℃
Storage temperature range	T_{stg}	-65 to +150					℃

NOTES:
(1) Pulse test: 300 μs pulse width,1% duty cycle
(2) P.C.B. mounted with 0.2x0.2"(5.0x5.0mm) copper pad areas

RATINGS AND CHARACTERISTIC CURVES

FIG.1 - FORWARD CORRENT DERATING CURVE

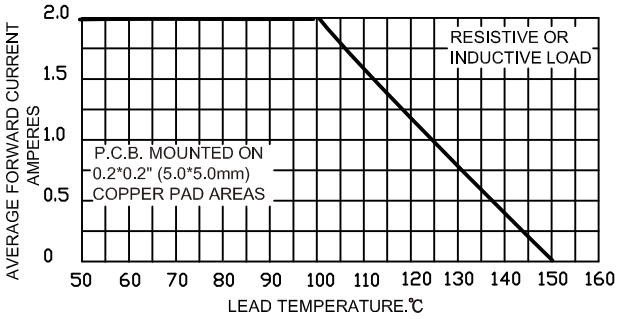


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

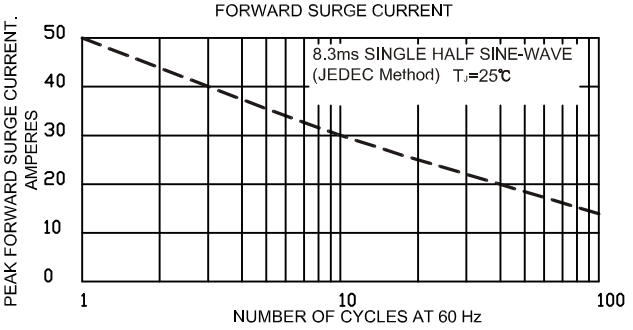


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

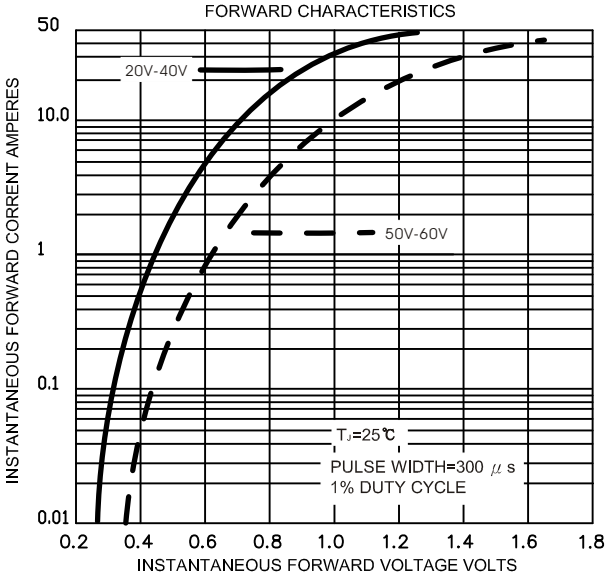


FIG.4-TYPICAL REVERSE CURRENT CHARACTERISTICS

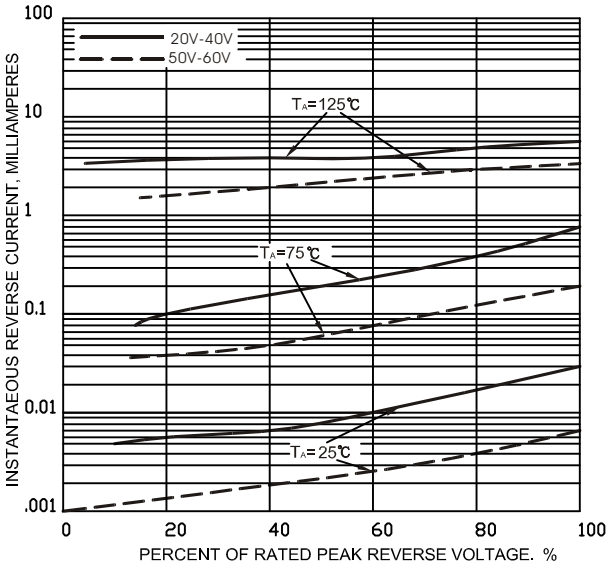
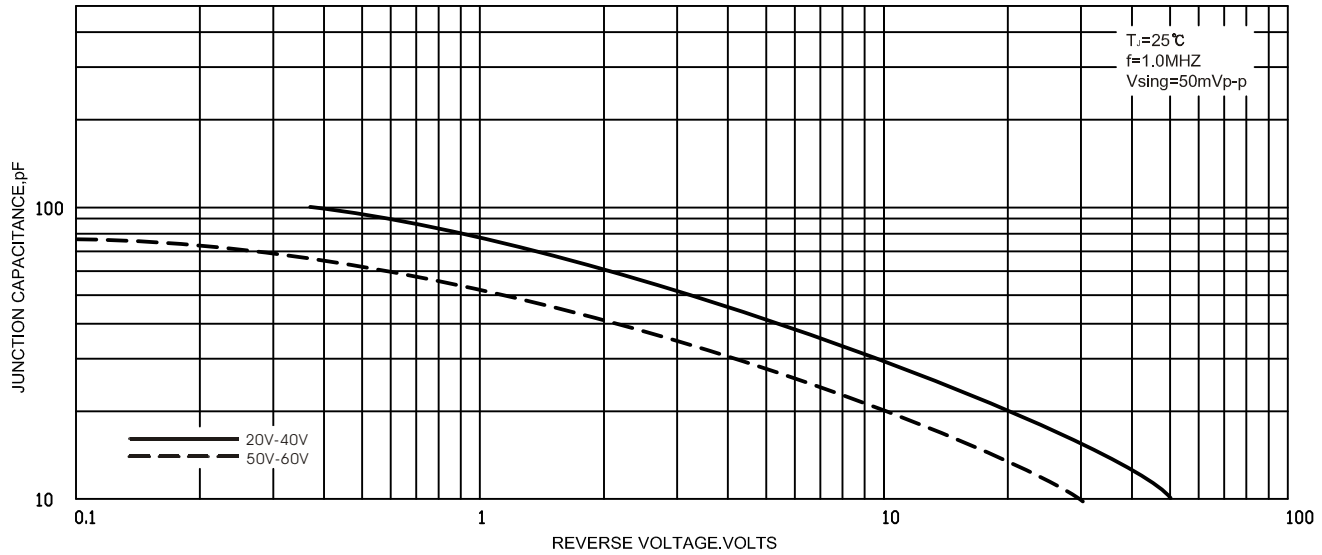


FIG.5-TYPICAL JUNCTION CAPACITANCE



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