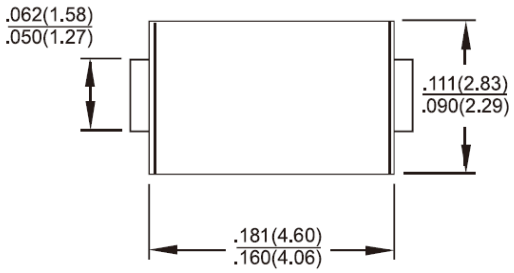
TAIWAN SEMICONDUCTOR

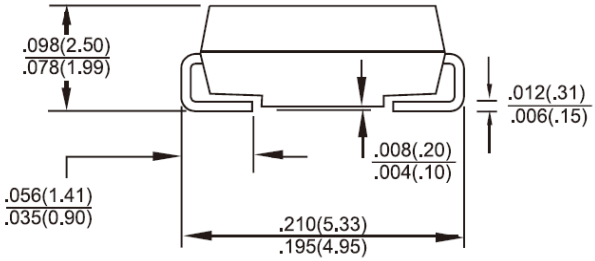
SK22A - SK215A

2.0AMPS. Surface Mount Schottky Barrier Rectifier

SMA/DO-214AC

RoHS COMPLIANCE





Features

- ✧ For surface mounted application
- ✧ Metal to silicon rectifier, majority carrier conduction
- ✧ Low forward voltage drop
- ✧ Easy pick and place
- ✧ High surge current capability
- ✧ Plastic material used carriers Underwriters Laboratory Classigication 94V-0
- ✧ Epitaxial construction
- ✧ High temperature soldering: 260℃ /10 seconds at terminals
- ✧ Green compound with suffix "G" on packing code & prefix "G" on datecode

Mechanical Data

- ✧ Case: Molded plastic
- ✧ Terminal: Pure tin plated, lead free
- ✧ Polarity: Indicated by cathode band
- ✧ Packaging: 8mm tape per EIA STD RS-481
- ✧ Weight: 0.067 grams

Dimensions in inches and (millimeters)

Marking Diagram

SK2XA = Specific Device Code
G = Green Compound
Y = Year
M = Work Month

Maximum Ratings and Electrical Chara

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

Type Number	Symbol	SK 22A	SK 23A	SK 24A	SK 25A	SK 26A	SK 29A	SK 210A	SK 215A	Unit
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	20	30	40	50	60	90	100	150	V
Maximum RMS Voltage	V_{RMS}	14	21	28	35	42	63	70	105	V
Maximum DC Blocking Voltage	V_{DC}	20	30	40	50	60	90	100	150	V
Maximum Average Forward Rectified Current at T_L(See Fig. 1)	$I_{F(AV)}$	2								A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load	I_{FSM}	50								A
Maximum Instantaneous Forward Voltage (Note 1) @ 2 A	V_F	0.50			0.70		0.85		0.95	V
Maximum DC Reverse Current @ T_A=25 ℃	I_R	0.5					0.1			mA
at Rated DC Blocking Voltage @ T_A=100 ℃		10			5		-			mA
@ T_A=125 ℃		-					2.0			mA
Non-repetitive Peak Revwese Avalanche Energy L=40mH Ta=25℃ max prior to surge, Inductive load switch off	E_{RSM}	20								mJ
Typical Junction Capecitance	C_j	130					50			pF
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	88								^{O}C/W
Operating Temperature Range	T_J	- 65 to + 125				- 65 to + 150				^{O}C
Storage Temperature Range	T_{STG}	- 65 to + 150								^{O}C

Note 1: Pulse Test with PW=300u sec, 1% Duty Cycle

Note 2: Measured on P.C.Board with 0.2" x 0.2"(5.0mm x 5.0mm) Copper Pad Areas.

TAIWAN SEMICONDUCTOR

RATINGS AND CHARACTERISTIC CURVES (SK22A THRU SK215A)

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

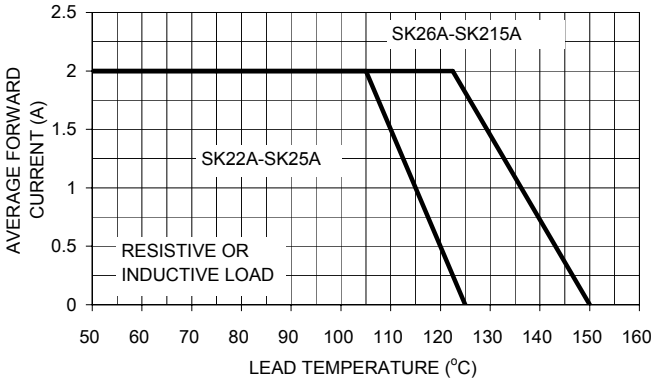


FIG. 2- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

FIG. 3- TYPICAL FORWARD CHARACTERISTICS

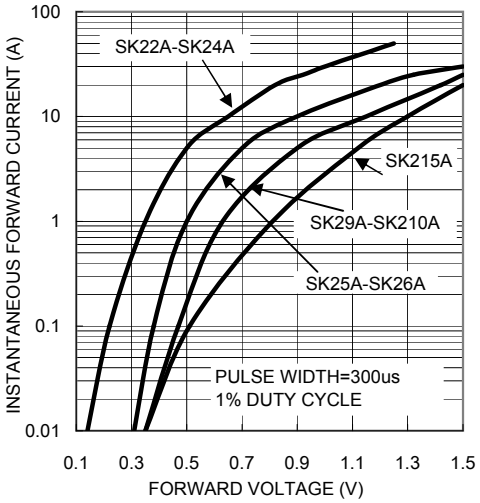


Fig. 4- TYPICAL REVERSE CHARACTERISTICS

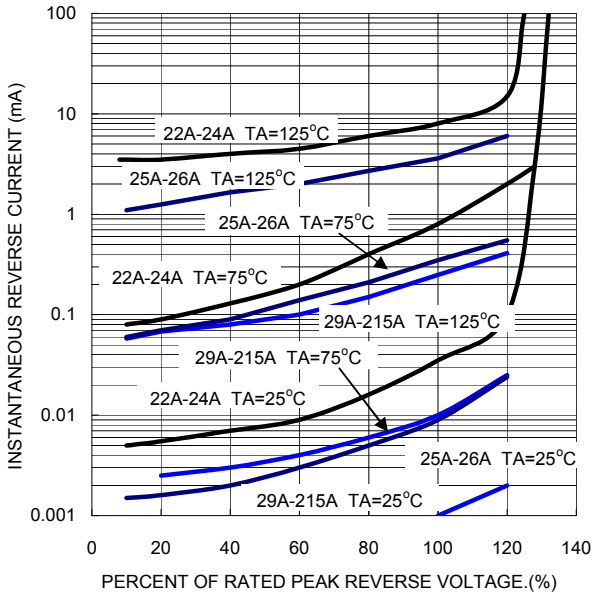


FIG. 5- TYPICAL JUNCTION CAPACITANCE

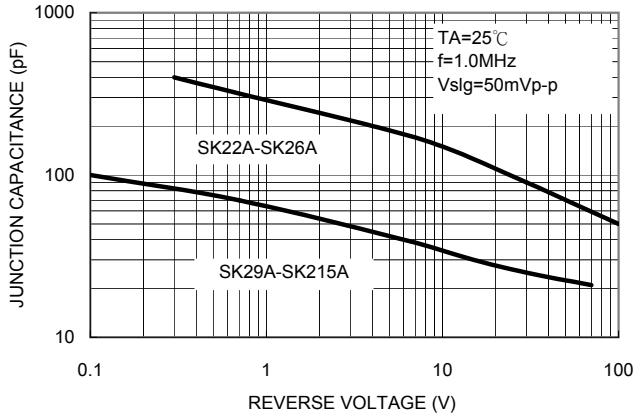
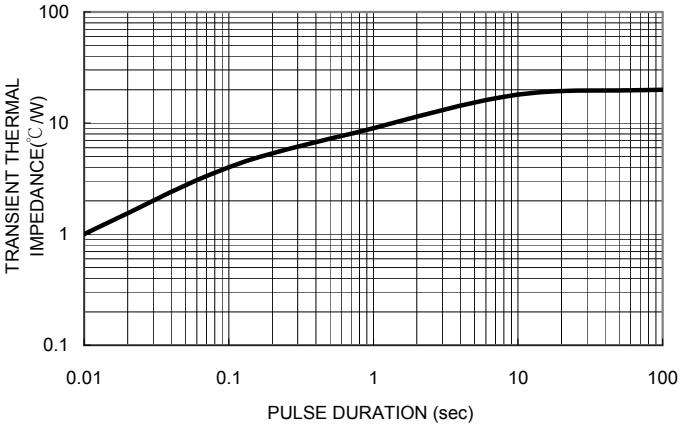


FIG. 6- TYPICAL TRANSIENT THERMAL CHARACTERISTICS



Version:G11