

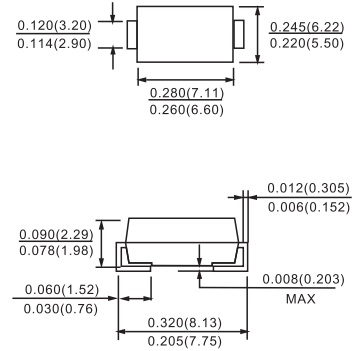
**TAYCHIPST**

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIERS

SS32 THRU SS310**20V-100V 3.0A****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 Classification 94V-0
 Epitaxial construction
 High temperature soldering:
 260°C / 10 seconds at terminals

DO-214AB(SMC)



Dimensions in inches and (millimeters)

Absolute Maximum Ratings* $T_A = 25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Value	Units
I_O	Average Rectified Current @ $T_A = 75^\circ\text{C}$	3.0	A
$I_{f(\text{surge})}$	Peak Forward Surge Current 8.3 ms single half-sine-wave Superimposed on rated load (JEDEC method)	100	A
P_D	Total Device Dissipation Derate above 25°C	2.27 18	W mW/ $^\circ\text{C}$
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient**	55	$^\circ\text{C/W}$
$R_{\theta JC}$	Thermal Resistance, Junction to Case	17	$^\circ\text{C/W}$
T_{stg}	Storage Temperature Range	-55 to +150	$^\circ\text{C}$
T_J	Operating Junction Temperature	-55 to +150	$^\circ\text{C}$

These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

Device mounted on FR-4 PCB 0.55 x 0.55" (14 x 14 mm).

Electrical Characteristics $T_A = 25^\circ\text{C}$ unless otherwise noted

Parameter	Device								Units
	32	33	34	35	36	38	39	310	
Peak Repetitive Reverse Voltage	20	30	40	50	60	80	90	100	V
Maximum RMS Voltage	14	21	28	35	42	56	63	70	V
DC Reverse Voltage (Rated V_R)	20	30	40	50	60	80	90	100	V
Maximum Reverse Current $T_A = 25^\circ\text{C}$	0.5								mA
@ rated V_R $T_A = 100^\circ\text{C}$	20			10					mA
Maximum Forward Voltage @ 3.0 A	500			750		850			mV



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20V-100V 3.0A

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

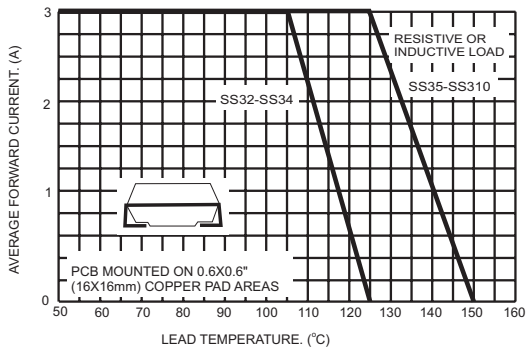


FIG.2- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

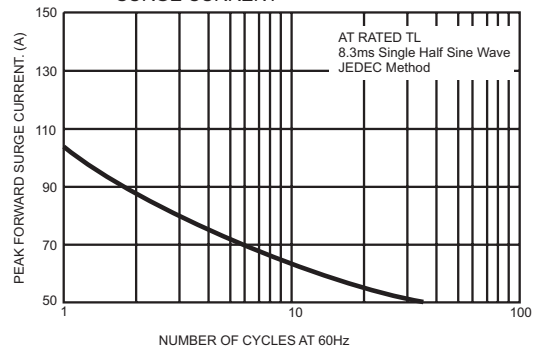


FIG.3- TYPICAL FORWARD CHARACTERISTICS

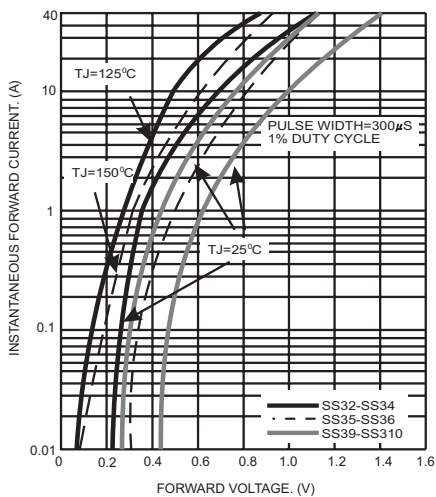


FIG.4- TYPICAL REVERSE CHARACTERISTICS

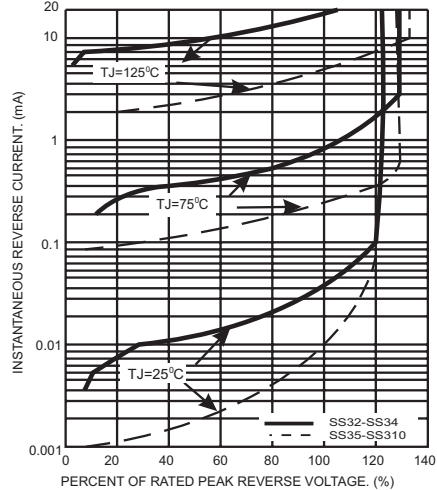


FIG.5- TYPICAL JUNCTION CAPACITANCE

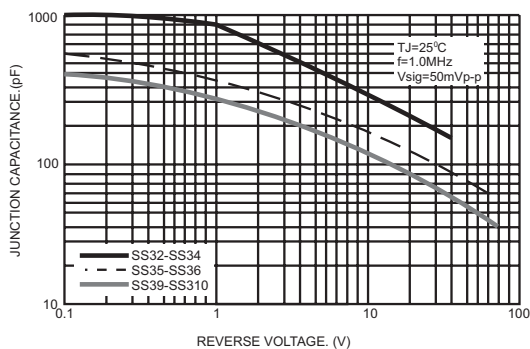


FIG.6- TYPICAL TRANSIENT THERMAL IMPEDANCE

