

**TAYCHIPST**

SURFACE MOUNT GENERAL PURPOSE RECTIFIERS

GS3A THRU GS3M

50V-1000V 3.0A

FEATURES

The plastic package carries Underwriters Laboratory
Flammability Classification 94V-0
For surface mounted applications
Low reverse leakage
Built-in strain relief, ideal for automated placement
High forward surge current capability
High temperature soldering guaranteed:
250°C/10 seconds at terminals
Glass passivated chip junction

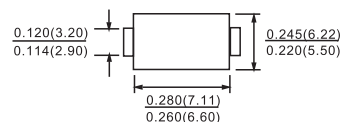
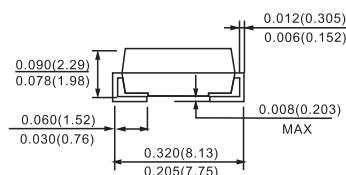
MECHANICAL DATA

Case: JEDEC DO-214AB molded plastic body over passivated chip
Terminals: Solder plated, solderable per MIL-STD-750,
Method 2026

Polarity: Color band denotes cathode end

Mounting Position: Any

Weight: 0.007 ounce, 0.25grams

DO-214AB(SMC)

Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(single-phase, half-wave, 60HZ, resistive or inductive load rating at 25°C, unless otherwise stated,
for capacitive load, derate current by 20%)

	SYMBOL	GS 3A	GS 3B	GS 3D	GS 3G	GS 3J	GS 3K	GS 3M	units
Maximum Recurrent Peak Reverse Voltage	Vrrm	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	Vrms	35	70	140	280	420	560	700	V
Maximum DC blocking Voltage	Vdc	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current 3/8"lead length at T _L =75°C	If(av)	3.0							A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load	Ifsm	100.0							A
Maximum Forward Voltage at rated Forward current	Vf	1.1							V
Maximum DC Reverse Current Ta =25°C at rated DC blocking voltage Ta =125°C	Ir	5.0 250							uA
Typical Reverse Recovery Time (Note 1)	Trr	2.3							us
Typical Junction Capacitance (Note 2)	Cj	60.0							pF
Typical Thermal Resistance (Note 3)	Rth(ja)	47.0							°C/W
	Rth(jl)	13.0							
	Rth(jc)	28.0							
Storage and Operating Temperature Range	Tstg	-50 to +150							°C

Note:

1. Reverse Recovery Condition I_f = 0.5A, I_r = 1.0A, I_{rr} = 0.25A
2. Measured at 1.0 MHz and applied voltage of 4.0Vdc
3. Thermal Resistance from junction to ambient and from junction to lead mounted on 8×8mm copper pad area



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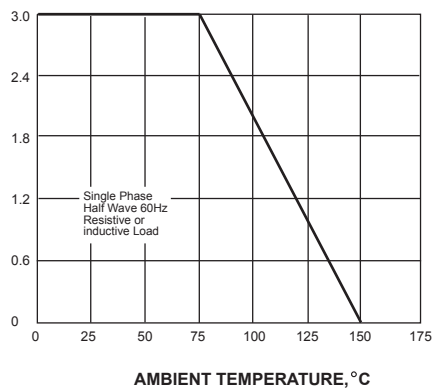
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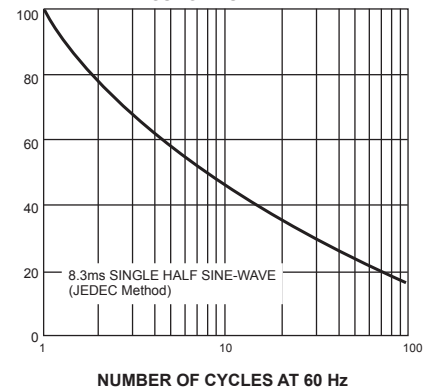
AVERAGE FORWARD RECTIFIED CURRENT,
AMPERES

FIG. 1- FORWARD CURRENT DERATING CURVE



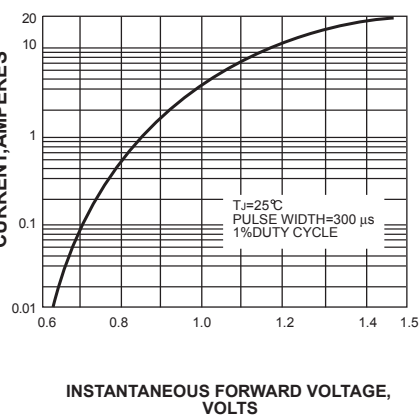
PEAK FORWARD SURGE CURRENT,
AMPERES

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



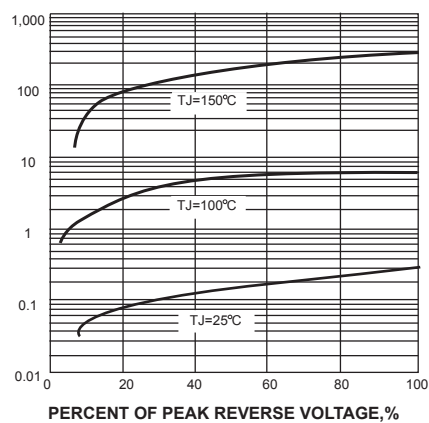
INSTANTANEOUS FORWARD
CURRENT, AMPERES

FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



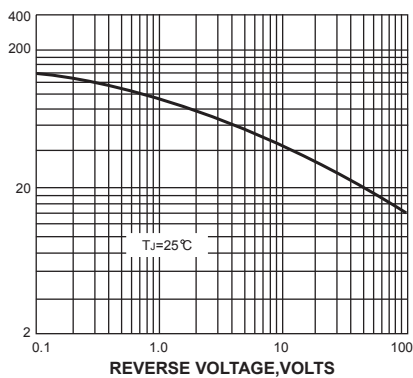
INSTANTANEOUS REVERSE CURRENT,
MICROAMPERES

FIG. 4-TYPICAL REVERSE CHARACTERISTICS



JUNCTION CAPACITANCE, pF

FIG. 5-TYPICAL JUNCTION CAPACITANCE



TRANSIENT THERMAL IMPEDANCE,
°C/W

FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE

