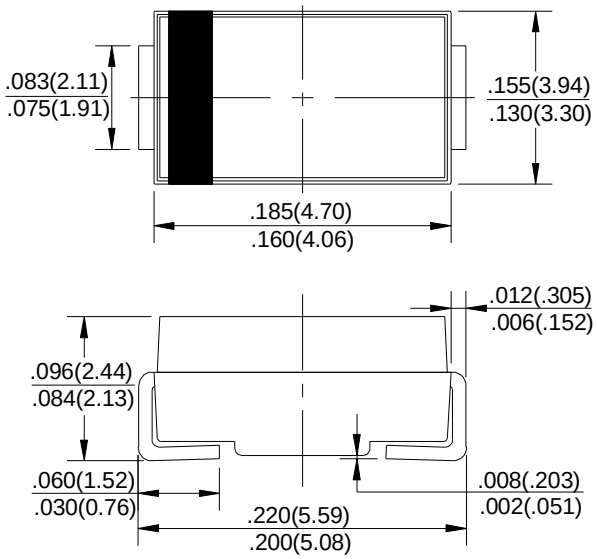
CURRENT 5.0 Ampere
VOLTAGE RANG 50 to 1000 Volts

US5AB THRU US5MB

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

DO-214AA (SMB)



Dimensions in inches and (millimeters)

MECHANICAL DATA

Case : JEDEC DO-214AA 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 :0.003 ounce, 0.093grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25◦C ambient temperature unless otherwise specified.
Single phase half-wave 60Hz,resistive or inductive load,for capacitive load current derate by 20%.

Catalog Number	SYMBOLS	US5A	US5B	US5D	US5G	US5J	US5K	US5M	UNITS
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	VOLTS
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	VOLTS
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	VOLTS
Maximum average forward rectified current at T_L=55°C	$I_{(AV)}$	5.0							Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	100.0							Amps
Maximum instantaneous forward voltage at 5.0A	V_F	1.0			1.4	1.7			Volts
Maximum DC reverse current T_A=25℃ at rated DC blocking voltage T_A=100℃	I_R	10.0 300.0							μA
Maximum reverse recovery time (NOTE 1)	t_{rr}	50				75			ns
Typical junction capacitance (NOTE 2)	C_J	15				12			pF
Typical thermal resistance (NOTE 3)	$R_{\theta JA}$	15.0							°C/W
Operating junction and storage temperature range	T_J,T_{STG}	-50 to +150							°C

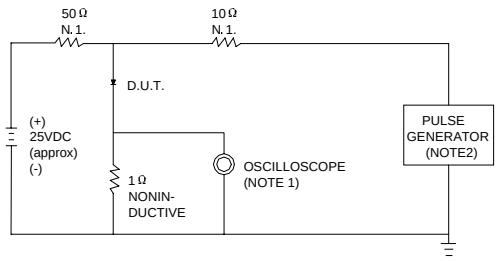
Note:1.Reverse recovery condition I_F=0.5A,I_R=1.0A,Irr=0.25A
2.Measured at 1MHz and applied reverse voltage of 4.0V D.C.
3.P.C.B. mounted with 0.2x0.2”(5.0x5.0mm) copper pad areas

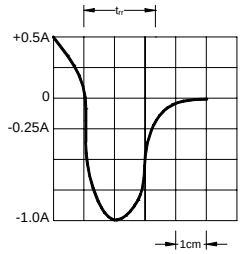
CURRENT 5.0 Ampere
VOLTAGE RANG 50 to 1000 Volts

US5AB THRU US5MB

RATING AND CHRACTERISTIC CURVES US5A Thru US5M

FIG.1 -- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC

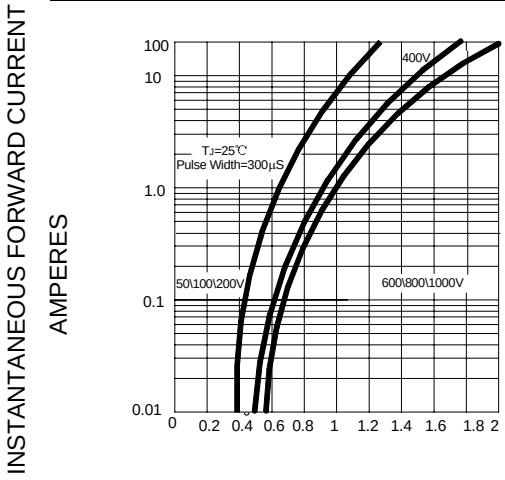




NOTES:1.RISE TIME = 7ns MAX.INPUT IMPEDANCE = 1MΩ.22pF.
2.RISE TIME =10ns MAX.SOURCE IMPEDANCE=50 Ω.

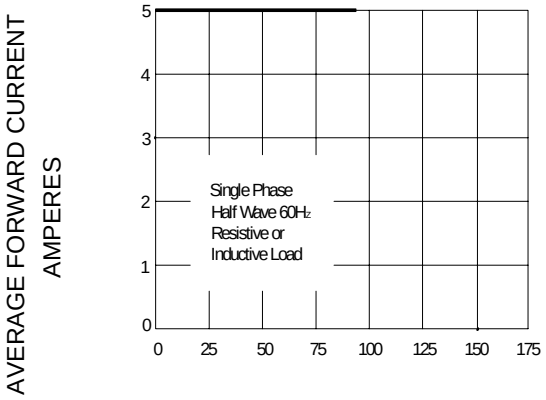
SET TIME BASE FOR 20/30 ns/cm

FIG.2 -- TYPICAL FORWARD CHARACTERISTIC



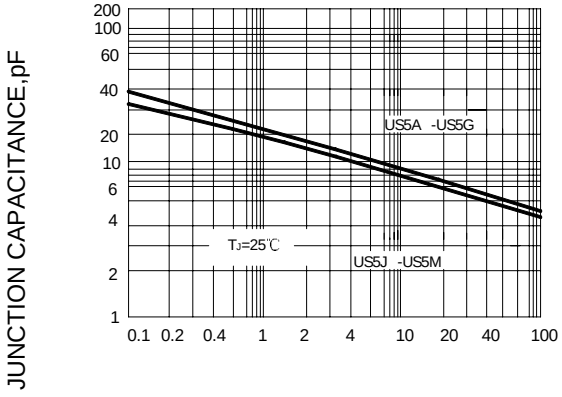
INSTANTANEOUS FORWARD VOLTAGE, VOLTS

FIG.3 -- FORWARD DERATING CURVE



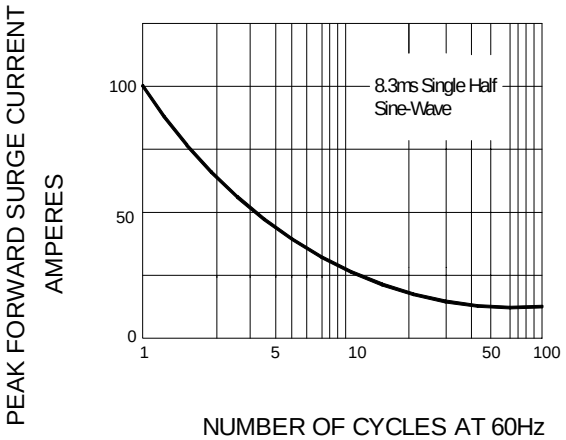
LEAD TEMPERATURE,℃

FIG.4 -- TYPICAL JUNCTION CAPACITANCE



REVERSE VOLTAGE,VOLTS

FIG.5 -- PEAK FORWARD SURGE CURRENT



NUMBER OF CYCLES AT 60Hz