SURFACE MOUNT FAST RECOVERY RECTIFIER
Reverse Voltage - 50 to 1000 Volts Forward Current - 1.0 Ampere

DO-214AC

$\frac{0.087\,(2.21)}{0.051\,(1.29)}$ $\frac{0.110(2.80)}{0.086(2.18)}$

$\frac{0.180(4.57)}{0.157(3.99)}$

$\frac{0.012(0.305)}{0.006(0.152)}$

$\frac{0.096(2.42)}{0.067(1.70)}$

$\frac{0.060(1.52)}{0.030(0.76)}$ $0.008(0.203)MAX.$

$\frac{0.222(5.66)}{0.185(4.70)}$

Dimensions in inches and (millimeters)

FEATURES

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- For surface mounted applications
- Fast switching for high efficiency
- Low reverse leakage
- Built-in strain relief,ideal for automated placement
- High forward surge current capability
- High temperature soldering guaranteed: 250℃/10 seconds at terminals

MECHANICAL DATA

Case: JEDEC DO-214AC molded plastic body
Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
Polarity: Color band denotes cathode end
Mounting Position: Any
Weight :0.058 grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

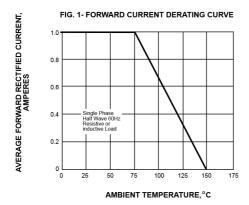|	SYMBOLS	RS1A	RS1B	RS1D	RS1G	RS1J	RS1K	RS1M	UNITS
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	VOLTS
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	VOLTS
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	VOLTS
Maximum average forward rectified current at T_L=75℃	$I_{(AV)}$	1.0							Amp
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	30.0							Amps
Maximum instantaneous forward voltage at 1.0A	V_F	1.0		1.3		1.70			Volts
Maximum DC reverse current T_A=25℃ at rated DC blocking voltage T_A=100℃	I_R	5.0 50.0							uA
Maximum reverse recovery time (NOTE 1)	t_{rr}	150				250	500		ns
Typical junction capacitance (NOTE 2)	C_J	15.0							pF
Typical thermal resistance (NOTE 3)	R_{qJA}	50.0							℃/W
Operating junction and storage temperature range	T_J,T_{STG}	-65 to +150							℃

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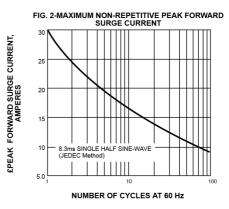2.Measured at 1MHz and applied reverse voltage of 4.0V D.C.
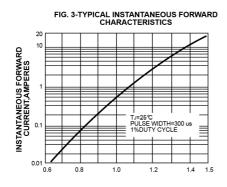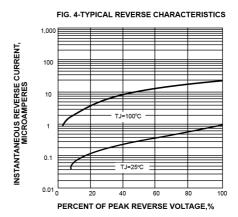3.P.C.B. mounted with 0.2x0.2"(5.0x5.0mm) copper pad areas

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SEP 威旺电子 WEIWANG ELECTRON

FIG. 1- FORWARD CURRENT DERATING CURVE

AVERAGE FORWARD RECTIFIED CURRENT, AMPERES

Single Phase
Half Wave 60Hz
Resistive or
inductive Load

AMBIENT TEMPERATURE,°C

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

£PEAK FORWARD SURGE CURRENT, AMPERES

8.3ms SINGLE HALF SINE-WAVE
(JEDEC Method)

NUMBER OF CYCLES AT 60 Hz

FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

INSTANTANEOUS FORWARD CURRENT,AMPERES

T_J=25℃
PULSE WIDTH=300 us
1%DUTY CYCLE

INSTANTANEOUS FORWARD VOLEAGE, VOLTS

FIG. 4-TYPICAL REVERSE CHARACTERISTICS

INSTANTANEOUS REVERSE CURRENT, MICROAMPERES

TJ=100℃

TJ=25℃

PERCENT OF PEAK REVERSE VOLTAGE,%

FIG. 5-TYPICAL JUNCTION CAPACITANCE

JUNCTION CAPACITANCE, pF

TJ=25℃

REVERSE VOLTAGE,VOLTS

FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE

TRANSIENT THERMAL IMPEDANCE, ℃/W

t,PULSE DURATION,sec.

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