Kingtronics®

S2A THRU S2M

FEATURE

Plastic package has underwrites laboratory flammability Classification 94V-0

For surface mounted applications

Low profile package

Built-in strain relief, ideal for automated placement

Glass Passivated chip junction

High temperature soldering guaranteed

250℃/10 second at terminals

MECHANICAL DATA

Case: JEDED DO-214AA molded plastic over glass passivated chip

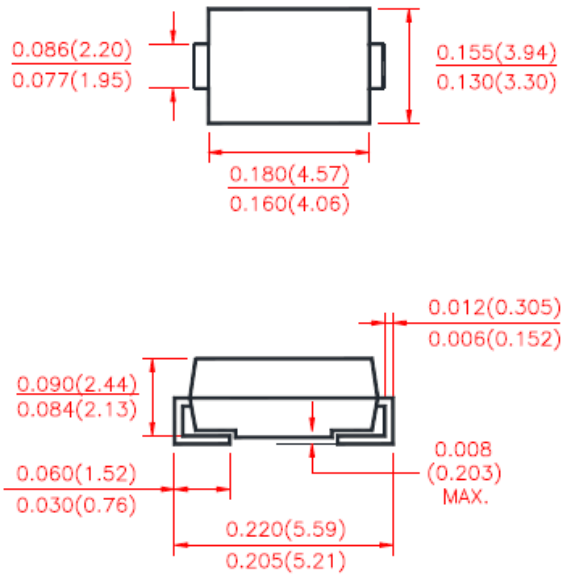
Terminals: Solder plated, Solderable per MIL-STD-750, method 2026

Polarity: Color band denotes cathode end

ZENER DIODE

VOLTAGE RANGE 50 to 1000 Volts CURRENT 2.0 Ampe

SMB



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25℃ ambient temperature unless otherwise specified

MAXIMUM RATINGS & THERMAL CHARACTERISTICS ..

	Symbols	S2A	S2B	S2D	S2G	S2J	S2K	S2M	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= 100°C	$I_{F(AV)}$	2.0							Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method) T_L= 100°C	I_{FSM}	50							Amps
Typical Thermal Resistance (NOTE 1)	$R_{\theta JA}$	53							℃/W
	$R_{\theta JL}$	16							
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to +150							℃

ELECTRICAL CHARACTERISTICS

	Symbols	S2A	S2B	S2D	S2G	S2J	S2K	S2M	UNITS
Maximum Instantaneous Forward Voltage at 1.5A	V_F				1.15				Volts
Maximum DC Reverse Current T_A = 25℃	I_R				5.0				μA
at rated DC Blocking Voltage T_A = 125℃					125				
Typical Reverse Recovery Time at I_F=0.5A, I_R=1.0A, I_{RR}=0.25A,	T_{rr}				2.0				μS
Typical junction capacitance at 4.0V, 1MHz	C_J				30				pF

Notes:

1. Thermal resistance from Junction to ambient and from junction to lead mounted on P.C.B.with 0.3×0.3″(8.0 × 8.0mm) copper pad areas.

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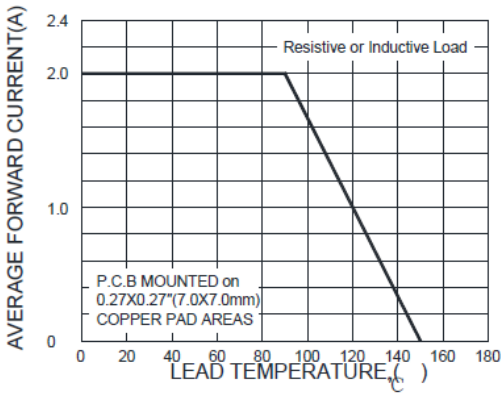
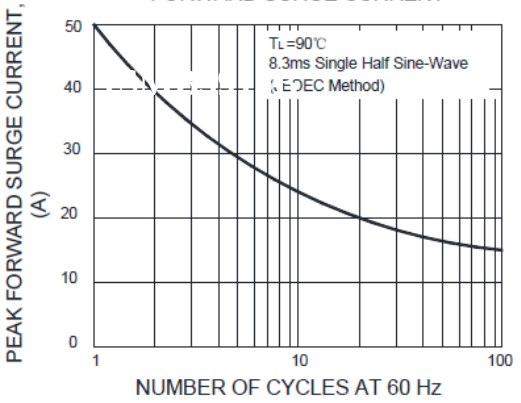
RATINGS AND CHARACTERISTIC CURVES

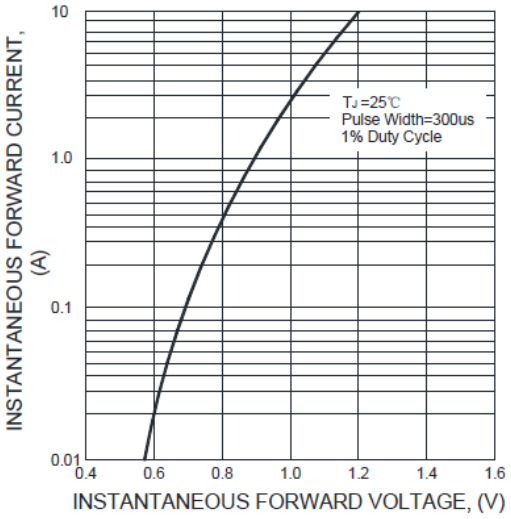
F1G.1-FORWARD CURRENT DERATING CURVE



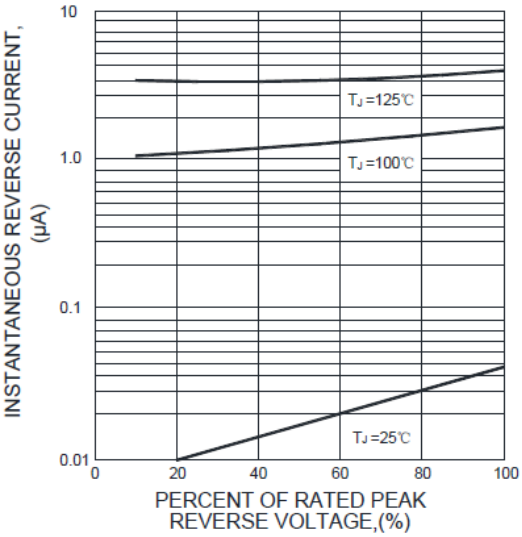
F1G.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT



F1G.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



F1G.4-TYPICAL REVERSE CHARACTERISTICS



F1G.5-TYPICAL JUNCTION CAPACITANCE