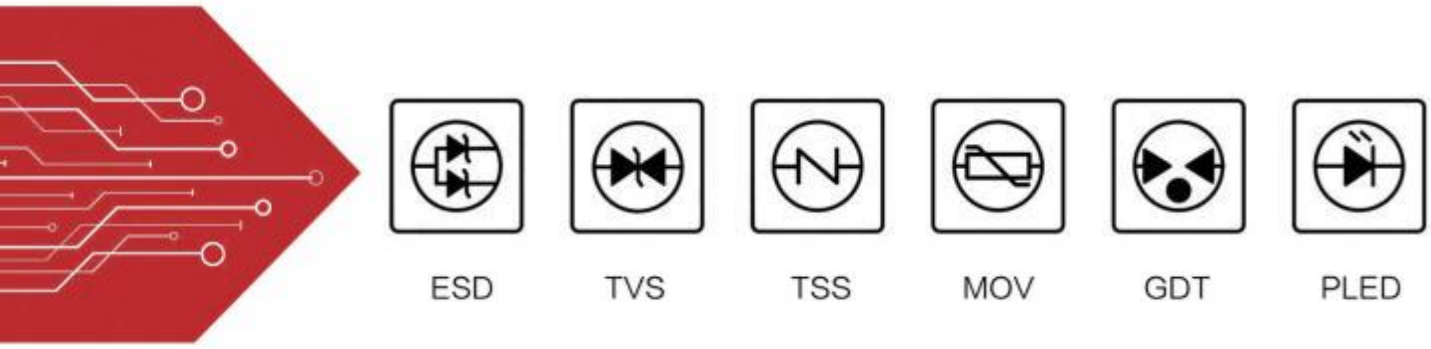
MSKSEMI
SEMICONDUCTOR



Product data sheet

www.msksemi.com

SMB

FEATURES

- Plastic package has underwrites laboratory flammability Classification 94V-0
- Low profile surface mount package
- Built-in strain relief
- Fast switching for high efficiency
- Glass Passivated chip junction
- High temperature soldering: 250C/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

Weight: 0.002ounce, 0.064 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25C ambient temperature unless otherwise specified

MAXIMUM RATINGS & THERMAL CHARACTERISTICS

PARAMETELS	SYMBOLS	RS2A	RS2B	RS2D	RS2G	RS2J	RS2K	RS2M	UNIT
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 =100C	$I_{F(AV)}$	2.0							Amps
Peak Forward Surge Current 8.3ms single half sine wave superimposed on rated load (JEDEC method) T_L=100C	I_{FSM}	50							Amps
Typical Thermal Resistance (NOTE 1)	$R_{\theta JA}$	55							C/ W
	$R_{\theta JL}$	18							
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to + 150							C

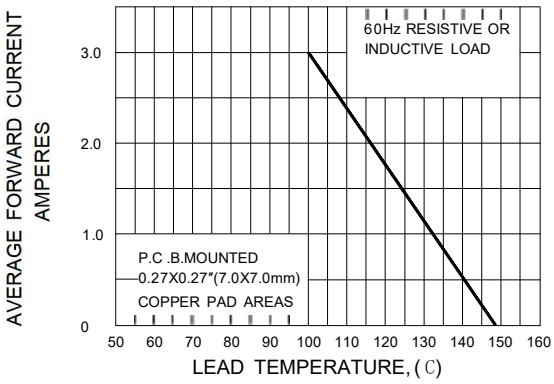
ELECTRICAL CHARACTERISTICS

PARAMETELS		SYMBOLS	RS2A	RS2B	RS2D	RS2G	RS2J	RS2K	RS2M	UNIT
Maximum Instantaneous Forward Voltage at 2.0A		V_F	1.30							Volts
Maximum DC Reverse Current at rated DC Blocking Voltage	T_A = 25C	I_R	5.0							μA
	T_A = 125C		200							
Typical Reverse Recovery Time I_F=0.5A, I_R=1.0A, I_{RR}=0.25A,		T_{rr}	150				250	500		ns
Typical junction capacitance at 4.0V, 1MHz		C_J	30							pF

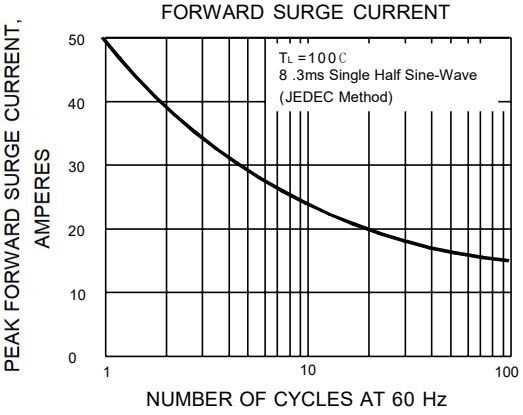
Notes:

1. Thermal resistance from Junction to ambient and from junction to lead mounted on P.C.B. with 0.27×0.27″ (7.0 × 7.0mm) copper pad areas.

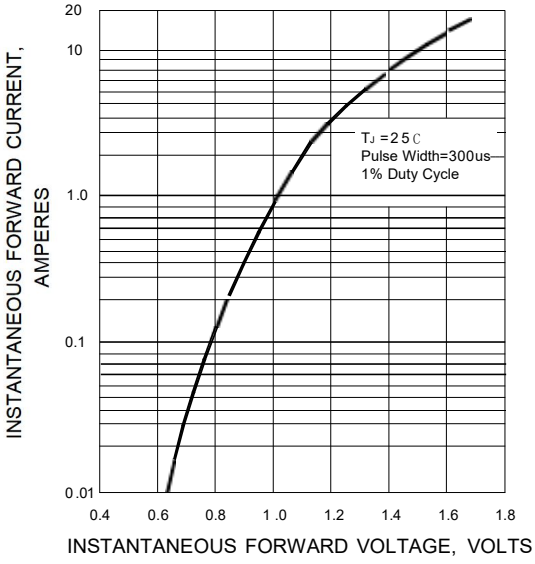
F1G. 1-FORWARD CURRENT DERATING CURVE



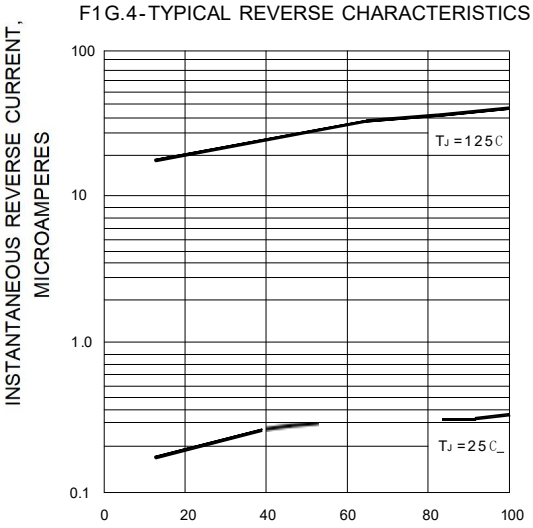
F1G.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT



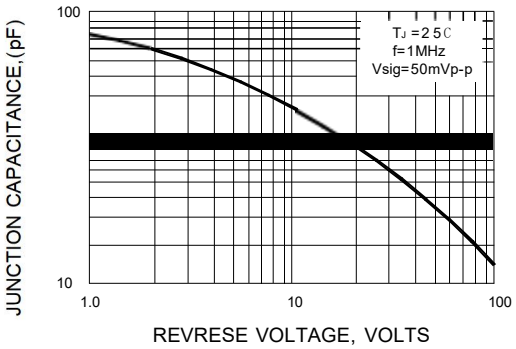
F1G.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



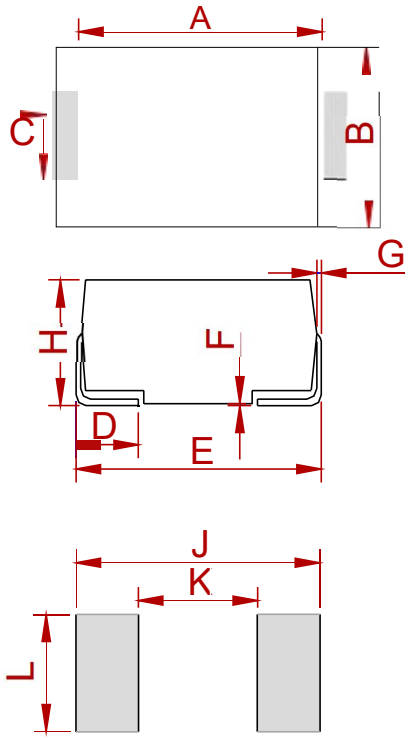
F1G.4-TYPICAL REVERSE CHARACTERISTICS



F1G.5-TYPICAL JUNCTION CAPACITANCE



PACKAGE MECHANICAL DATA



DO-214AA (SMB)

Ref.	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	4.25	4.75	0.167	0.187
B	3.30	3.94	0.130	0.155
C	1.85	2.21	0.073	0.087
D	0.76	1.52	0.030	0.060
E	5.08	5.59	0.200	0.220
F	0.051	0.203	0.002	0.008
G	0.15	0.31	0.006	0.012
H	2.11	2.44	0.083	0.096
J	6.80		0.270	
K		2.60		0.100
L	2.40		0.090	

REEL SPECIFICATION

P/N	PKG	QTY
RS2A THRU RS2M	SMB	3000

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