

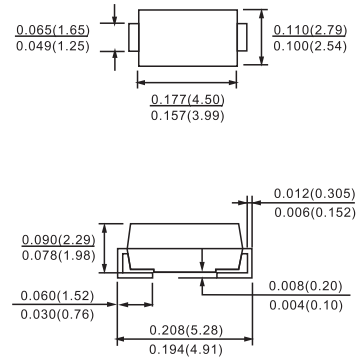
FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- High temperature metallurgically bonded construction
- Capable of meeting environmental standards of MIL-S-19500
- For use in high frequency rectifier circuits
- Fast switching for high efficiency
- Glass passivated cavity-free junction
- 1.0 Ampere operation at $T_A=75^\circ\text{C}$ with no thermal runaway
- Typical I_R less than 0.1mA

MECHANICAL DATA

Case: JEDEC DO-214AC molded plastic over glass body
Terminals: Plated axial leads, solderable per MIL-STD-750, Method 2026
Polarity: Color band denotes cathode end
Mounting Position: Any
Weight: 0.012 ounce, 0.34 gram

DO-214AC(SMA)



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

MAXIMUM RATINGS								
PARAMETER	SYMBOL	1N4933	1N4934	1N4935	1N4936	1N4937	UNIT	
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	V	
Maximum RMS voltage	V_{RMS}	35	70	145	280	420	V	
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	V	
Maximum average forward rectified current 0.375" (9.5 mm) lead length at $T_A = 75^\circ\text{C}$	$I_{F(AV)}$	1.0						A
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load	I_{FSM}	30						A
Operating junction and storage temperature range	T_J, T_{STG}	- 65 to + 175						$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS								
PARAMETER	TEST CONDITIONS	SYMBOL	1N4933	1N4934	1N4935	1N4936	1N4937	UNIT
Maximum instantaneous forward voltage	1.0 A	V_F	1.2					V
Maximum DC reverse current at rated DC blocking voltage	$T_A = 25^\circ\text{C}$	I_R	5.0					μA
	$T_A = 125^\circ\text{C}$		100					
Maximum reverse recovery time	$I_F = 1.0\text{ A}, V_R = 30\text{ V}$	t_{rr}	200					ns
Typical junction capacitance	4.0 V, 1 MHz	C_J	15					pF

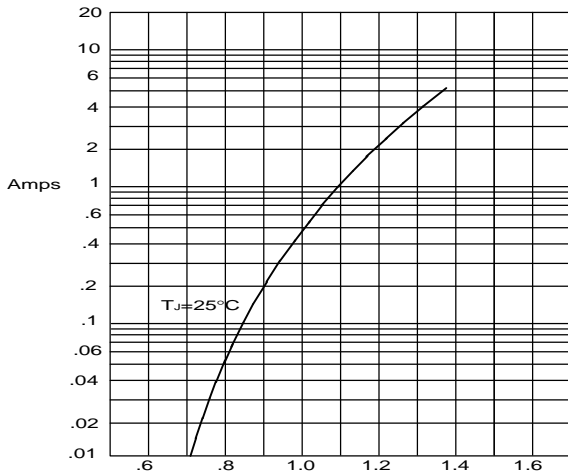
THERMAL CHARACTERISTICS								
PARAMETER	SYMBOL	1N4933	1N4934	1N4935	1N4936	1N4937	UNIT	
Typical thermal resistance	$R_{\theta JA}^{(1)}$	55						$^\circ\text{C/W}$

Note

(1) Thermal resistance from junction to ambient and from junction to lead at 0.375" (9.5 mm) lead length, PCB mounted

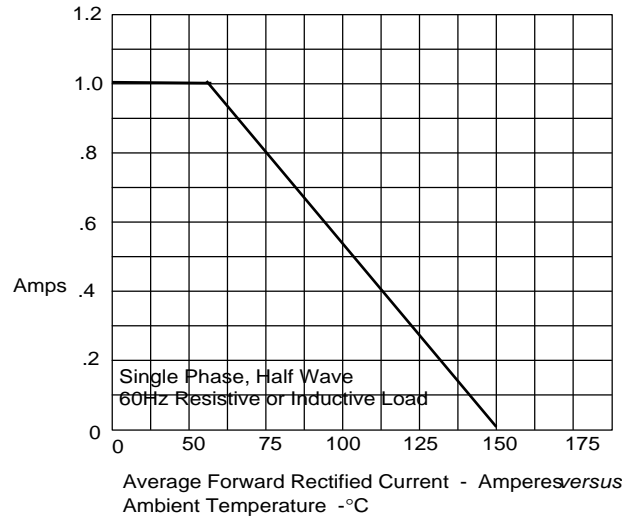
TESTING AND CHARACTERISTIC CURVES 1N4933 THRU 1N4937

Figure 1 Typical Forward Characteristics



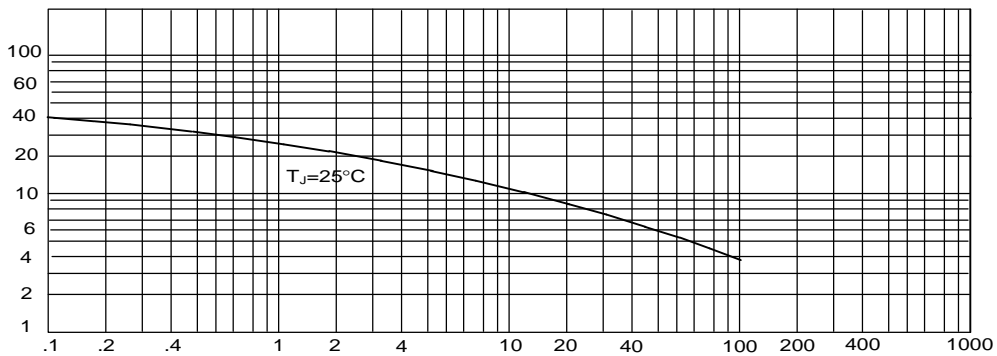
Instantaneous Forward Current - Amperes *versus*
Instantaneous Forward Voltage - Volts

Figure 2 Forward Derating Curve



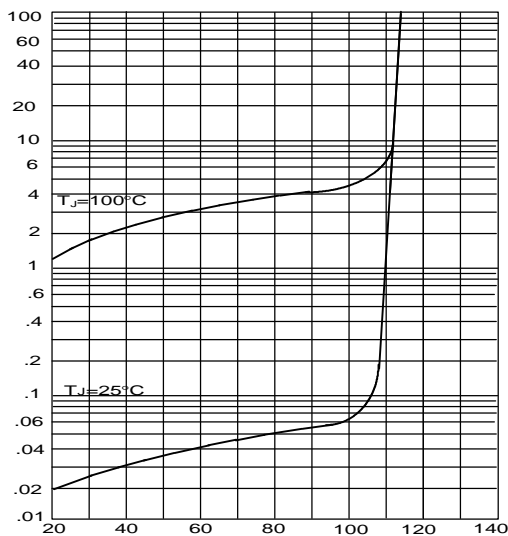
Average Forward Rectified Current - Amperes *versus*
Ambient Temperature - °C

Figure 3 Junction Capacitance



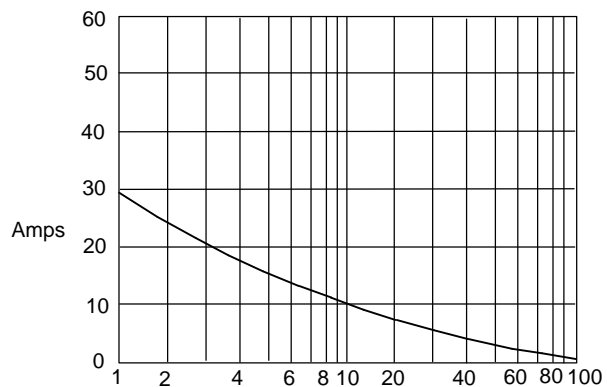
Junction Capacitance - pF *versus* Reverse Voltage - Volts

Figure 4 Typical Reverse Characteristics



Instantaneous Reverse Leakage Current - MicroAmperes

Figure 5 Peak Forward Surge Current



Peak Forward Surge Current - Amperes *versus*
Number Of Cycles At 60Hz - Cycles