

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

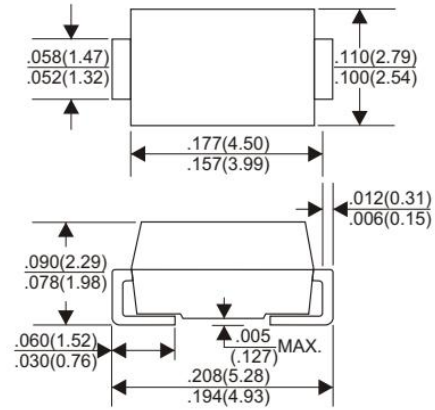
FEATURES

- * Ideal for surface mount applications
- * Easy pick and place
- * Built-in strain relief
- * Low forward voltage drop

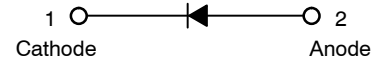
MECHANICAL DATA

- * Case: Molded plastic
- * Epoxy: UL 94V-0 rate flame retardant
- * Metallurgically bonded construction
- * Polarity: Color band denotes cathode end
- * Mounting position: Any
- * Weight: 0.063 grams

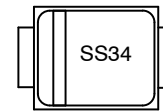
DO-214AC(SMA)



Dimensions in inches and (millimeters)



MARKING DIAGRAM



ORDERING INFORMATION

Device	Package	Shipping
SS34	SMA (Pb-Free)	2000 / Tape & Reel

MAXIMUM RATINGS

Rating	Symbol	Value	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	40	V
Average Rectified Forward Current (At Rated V_R , $T_L = 100^\circ\text{C}$)	I_O	3.0	A
Non-Repetitive Peak Surge Current (Surge Applied at Rated Load Conditions Halfwave, Single Phase, 60 Hz)	I_{FSM}	100	A
Storage/Operating Case Temperature	T_{stg}, T_C	-55 to +150	$^\circ\text{C}$
Operating Junction Temperature (Note 1)	T_J	-55 to +150	$^\circ\text{C}$
Voltage Rate of Change (Rated V_R , $T_J = 25^\circ\text{C}$)	dv/dt	10,000	V/ μs

THERMAL CHARACTERISTICS

Characteristic	Symbol	Value	Unit
Thermal Resistance – Junction-to-Lead (Note 2)	$R_{\theta JL}$	15	$^\circ\text{C}/\text{W}$
Thermal Resistance – Junction-to-Ambient (Note 2)	$R_{\theta JA}$	81	$^\circ\text{C}/\text{W}$

2. Mounted on 2" Square PC Board with 1" Square Total Pad Size, PC Board FR4.

ELECTRICAL CHARACTERISTICS

Characteristic	Symbol	Value		Unit
		$T_J = 25^\circ\text{C}$	$T_J = 100^\circ\text{C}$	
Instantaneous Forward Voltage (Typ.) ($I_F = 3.0\text{ A}$)	V_F	0.450	0.390	Volts
Instantaneous Reverse Current (Typ.) ($V_R = 40\text{ V}$)	I_R	0.3	15	mA

3. Pulse Test: Pulse Width $\leq 250\ \mu\text{s}$, Duty Cycle $\leq 2.0\%$.

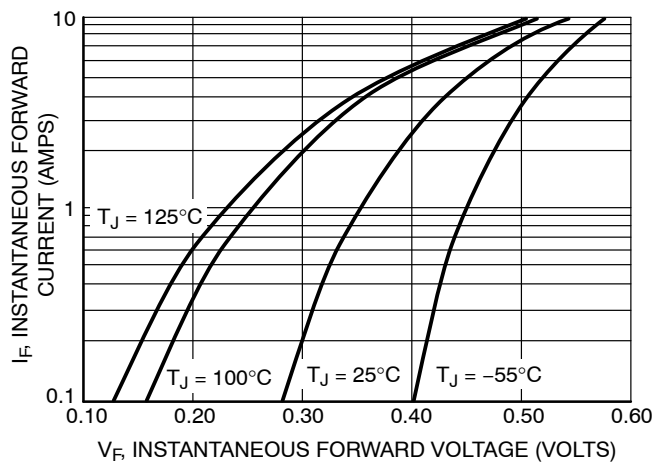
TYPICAL CHARACTERISTICS


Figure 1. Typical Forward Voltage

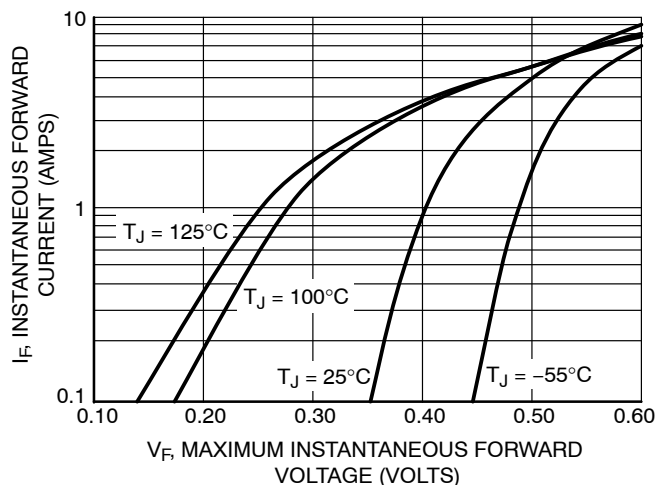


Figure 2. Maximum Forward Voltage

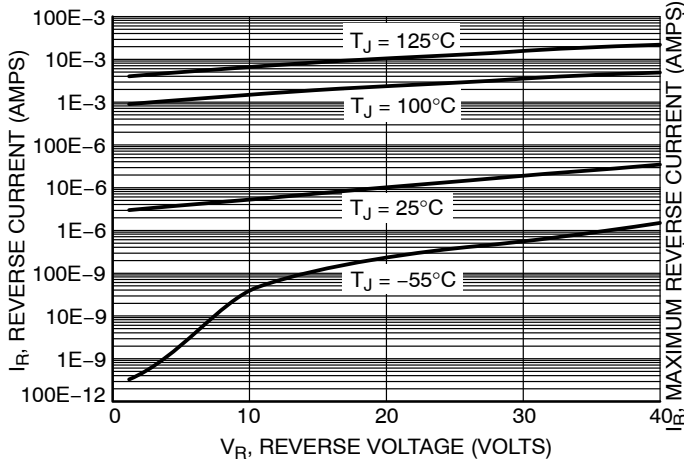


Figure 3. Typical Reverse Current

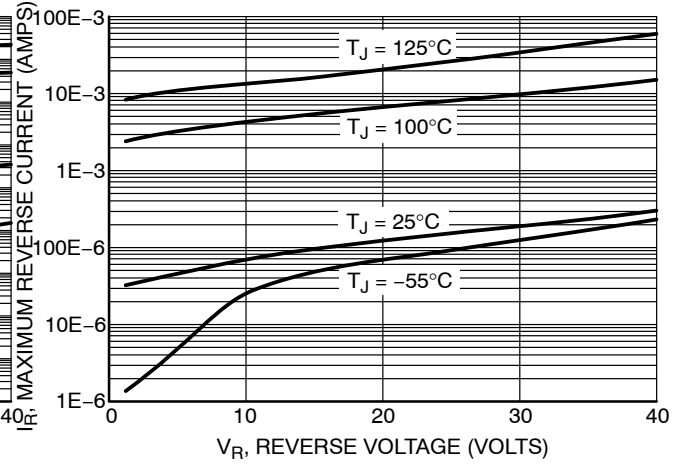


Figure 4. Maximum Reverse Current

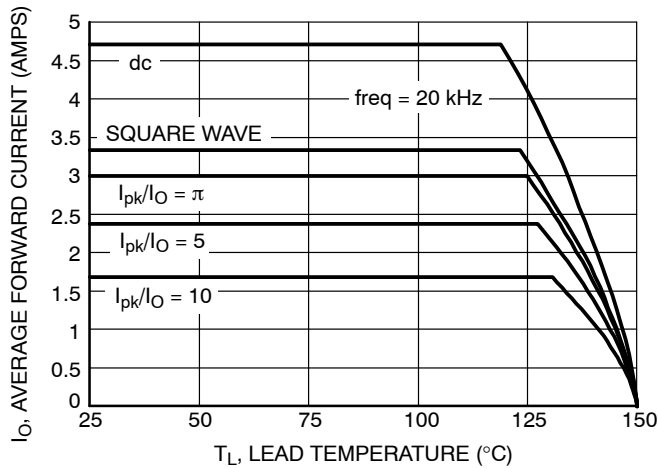


Figure 5. Current Derating

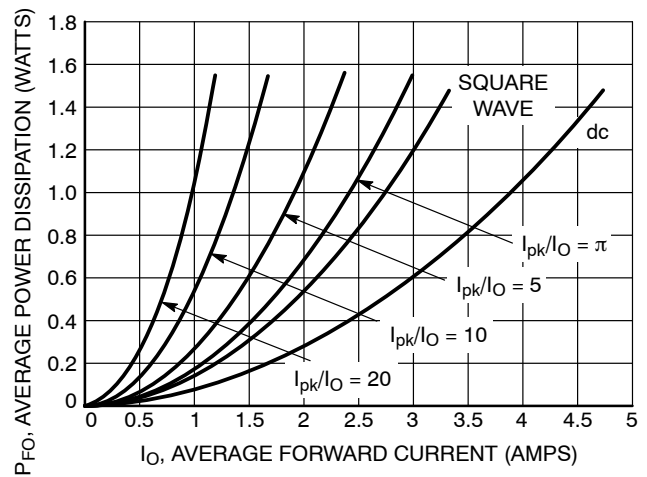


Figure 6. Forward Power Dissipation

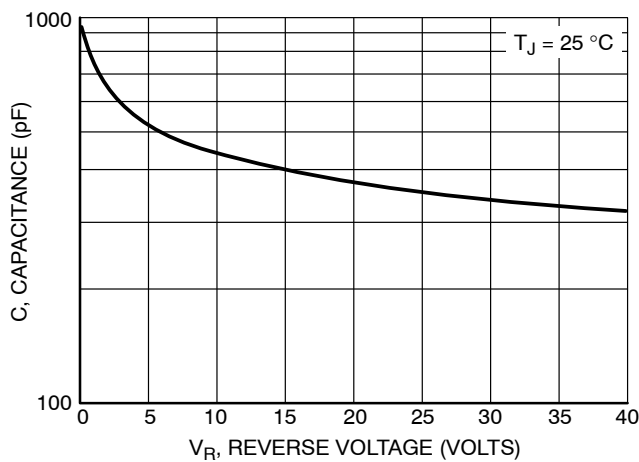


Figure 7. Capacitance

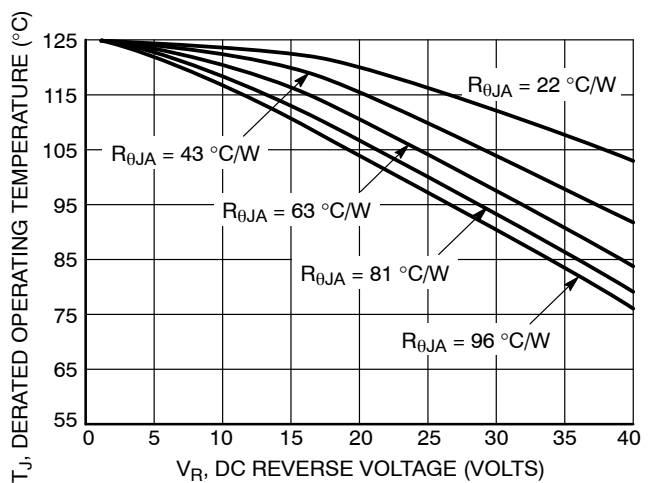


Figure 8. Typical Operating Temperature Derating

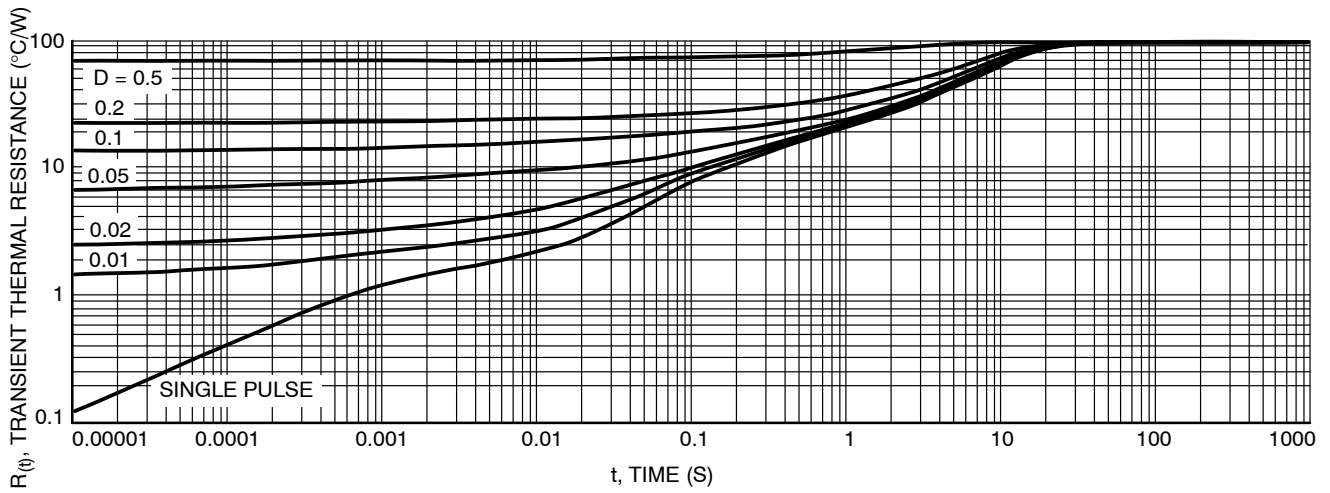


Figure 9. Thermal Response, Junction-to-Ambient (min pad)

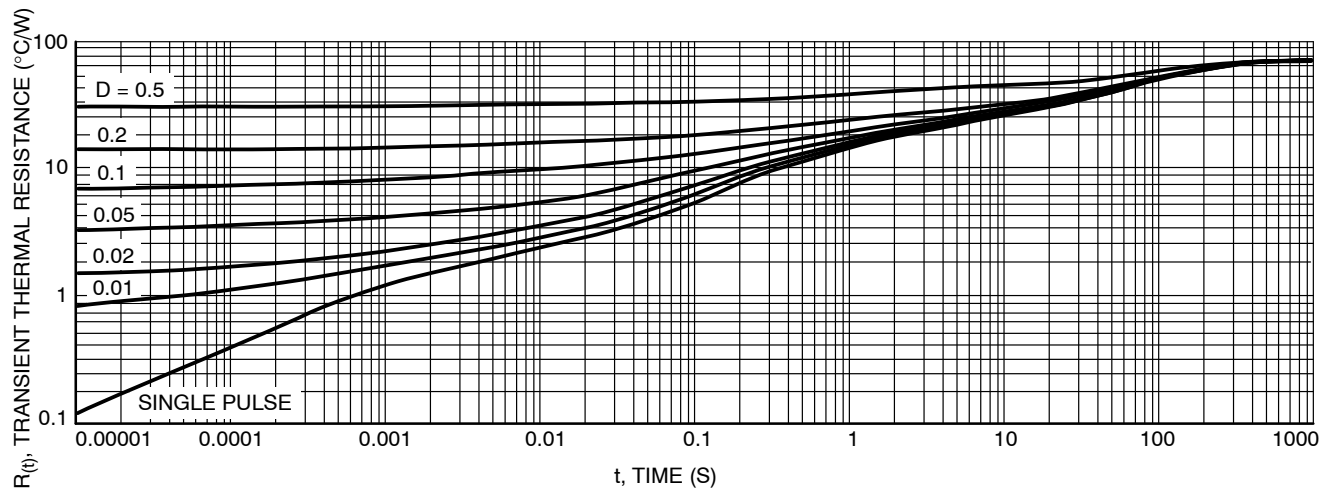


Figure 10. Thermal Response, Junction to Ambient (1 inch pad)