

SD3030

SCHOTTKY BARRIER RECTIFIER DIODE

PRV : 30 Volts

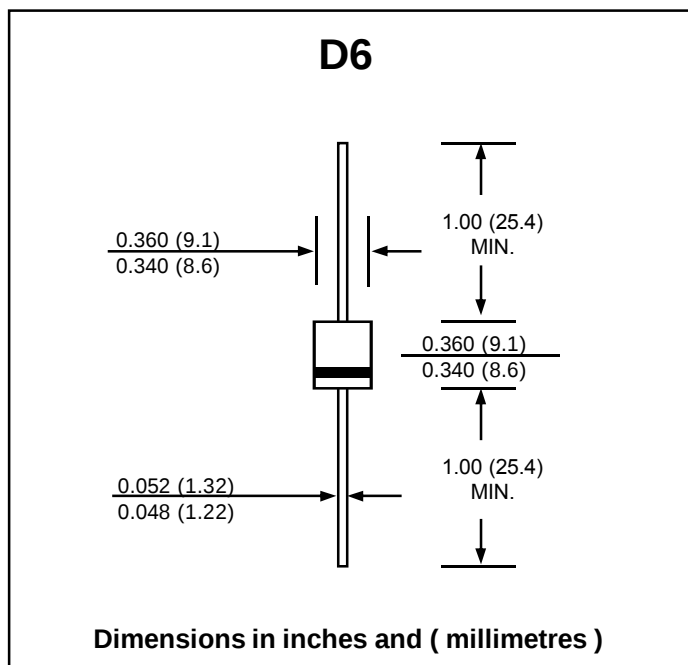
I_o : 30 Amperes

FEATURES :

- * High current capability
- * Low forward voltage drop
- * High surge capacity
- * Low power loss, High efficiency
- * **Pb / RoHS Free**

MECHANICAL DATA :

- * Case : Void-free molded plastic body
- * Epoxy : UL94V-0 rate flame retardant
- * Lead : Axial lead solderable per MIL-STD-202, Method 208 guaranteed
- * Polarity : Color band denotes cathode end
- * Mounting position : Any
- * Weight : 2.1 grams



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specified.

RATING	SYMBOL	VALUE	UNIT
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	30	V
Maximum Surge Peak Reverse Voltage	V_{RSM}	30	V
Maximum Average Forward Current, R-Load at $T_a = 70\text{ }^{\circ}\text{C}$ (Note 1)	$I_{F(AV)}$	30	A
Maximum Peak Forward Surge Current, 50 Hz half sine wave	I_{FSM}	650	A
Maximum Forward Voltage at $I_F = 5\text{ A}$, $T_J = 25\text{ }^{\circ}\text{C}$ at $I_F = 30\text{ A}$, $T_J = 25\text{ }^{\circ}\text{C}$	V_F	0.39	V
		0.55	
Maximum Reverse Current at $@ (T_J = 25\text{ }^{\circ}\text{C})$ at $V_R = V_{RRM}$ $@ (T_J = 125\text{ }^{\circ}\text{C})$	I_R	600	μA
	$I_{R(H)}$	70	mA
Typical Thermal Resistance Junction to Lead (Note 2)	$R_{\theta JL}$	1.0	K/W
Operating Junction Temperature Range ($T_J \leq 200\text{ }^{\circ}\text{C}$ in bupass mode (Note 3))	T_J	- 50 to + 150	$^{\circ}\text{C}$
Storage Temperature Range	T_{STG}	- 50 to + 175	$^{\circ}\text{C}$

Notes :

- (1) Valid, if leads are kept at ambient temperature at a distance of 6 mm from case.
- (2) Thermal resistance from junction to leas/terminal at distance 0 mm from case.
- (3) Max. Junction Temperature $T_J \leq 150\text{ }^{\circ}\text{C}$ ($V_R \leq 80\% V_{RRM}$) in reverse mode and $T_J \leq 200\text{ }^{\circ}\text{C}$ in bypass mode.

RATING AND CHARACTERISTIC CURVES (SD3030)

FIG.1 - FORWARD CURRENT DERATING CURVE

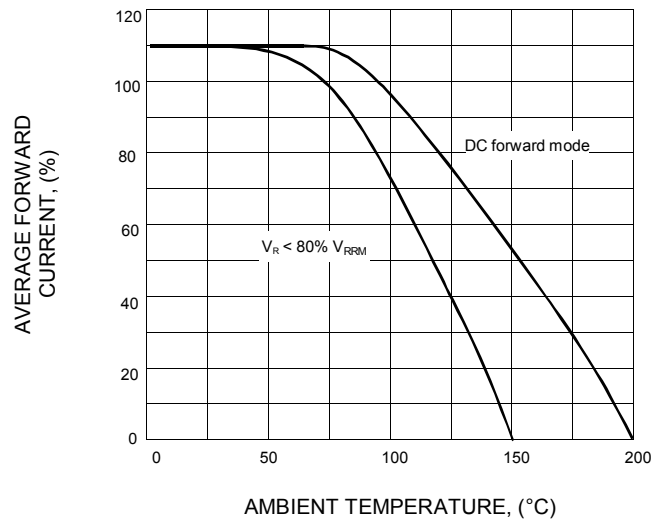


FIG.2 - TYPICAL FORWARD CHARACTERISTICS

