

BYW27-50 - BYW27-1000

SILICON RECTIFIER DIODES

PRV : 50 - 1000 Volts

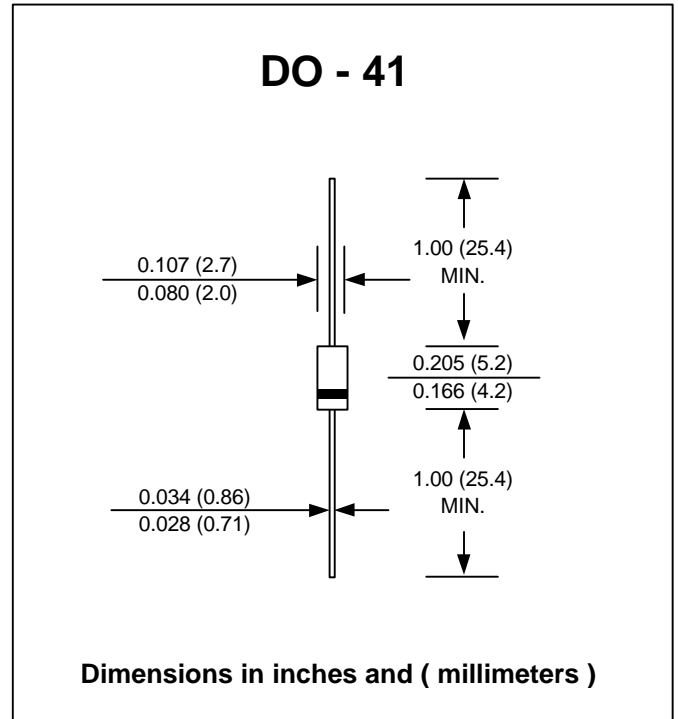
Io : 1.0 Amperes

FEATURES :

- * High current capability
- * High surge current capability
- * High reliability
- * Low reverse current
- * Low forward voltage drop
- * **Pb / RoHS Free**

MECHANICAL DATA :

- * Case : DO-41 Molded plastic
- * Epoxy : UL94V-O rate flame retardant
- * Lead : Axial lead solderable per MIL-STD-202, Method 208 guaranteed
- * Polarity : Color band denotes cathode end
- * Mounting position : Any
- * Weight : 0.34 gram



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specified.
 Single phase, half wave, 60 Hz, resistive or inductive load.
 For capacitive load, derate current by 20%.

RATING	SYMBOL	BYW 27-50	BYW 27-100	BYW 27-200	BYW 27-400	BYW 27-600	BYW 27-800	BYW 27-1000	UNIT
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V _{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V _{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Current 0.375"(9.5mm) Lead Length Ta = 70°C	I _F	1.0							A
Peak Forward Surge Current 8.3ms Single half sine wave Superimposed on rated load (JEDEC Method)	I _{FSM}	50							A
Maximum Forward Voltage at I _F = 1.0 Amp.	V _F	1.0							V
Maximum DC Reverse Current Ta = 25 °C at rated DC Blocking Voltage Ta = 100 °C	I _R	0.2							μA
	I _{R(H)}	25							μA
Typical Junction Capacitance (Note1)	C _J	30							pF
Typical Thermal Resistance (Note2)	RθJA	50							°C/W
Junction Temperature Range	T _J	- 65 to + 175							°C
Storage Temperature Range	T _{STG}	- 65 to + 175							°C

Notes :

- (1) Measured at 1.0 MHz and applied reverse voltage of 4.0V_{DC}
- (2) Thermal resistance from Junction to Ambient at 0.375" (9.5mm) Lead Lengths, P.C. Board Mounted.



RATING AND CHARACTERISTIC CURVES (BYW27-50 - BYW27-1000)

FIG.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

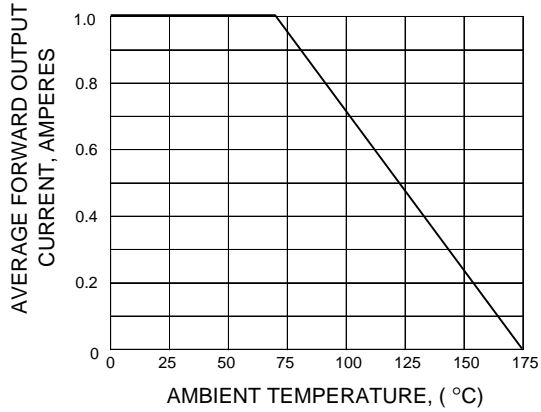


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

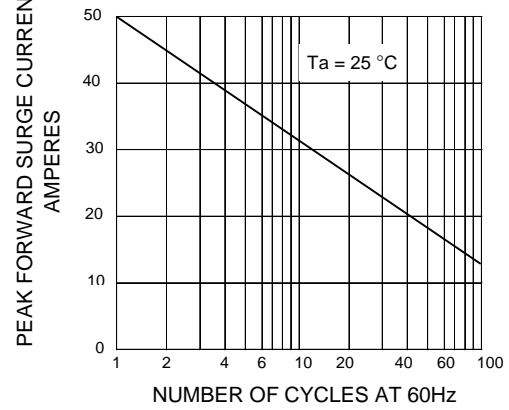


FIG.3 - TYPICAL FORWARD CHARACTERISTICS

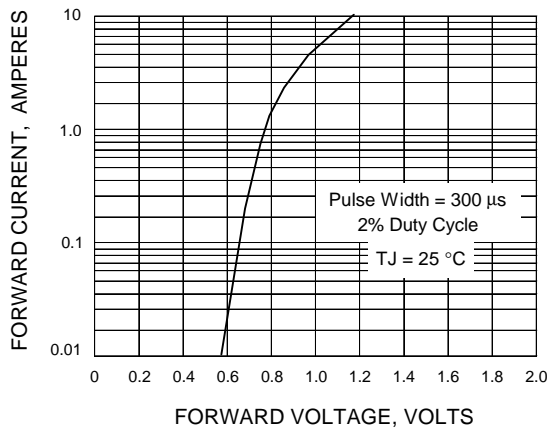


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

