

BY584

HIGH VOLTAGE SOFT-RECOVERY RECTIFIER DIODE

PRV : 1800 Volts

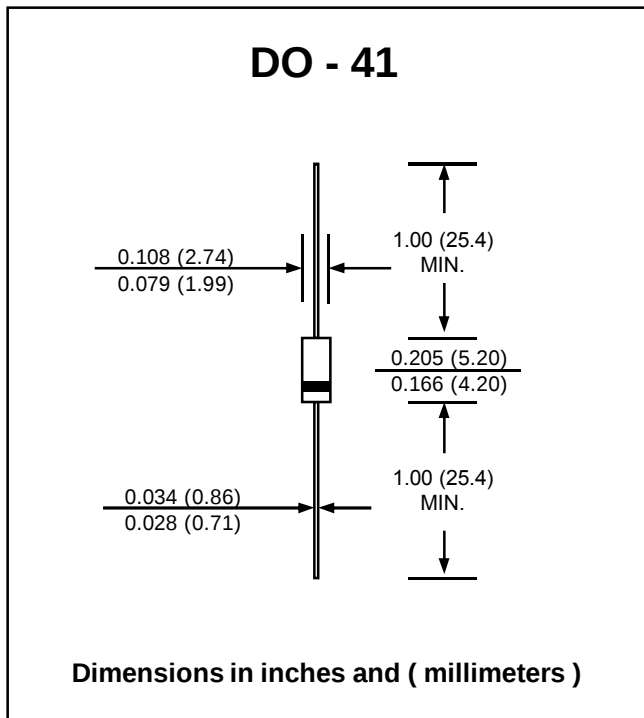
$I_{F(AV)}$: 100 mA

FEATURES :

- * Glass passivated junction chip
- * High current capability
- * High surge current capability
- * High reliability
- * Low reverse current
- * Low forward voltage drop
- * Fast switching for high efficiency
- * **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 : 0.339 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	VALUE	UNIT
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	1800	V
Maximum Working Reverse Voltage	V_{RW}	1500	V
Maximum Non-Repetitive Peak Reverse Voltage	V_{RSM}	1800	V
Maximum Average Forward Current (Note 1)	$I_{F(AV)}$	85	mA
Maximum Non-Repetitive Peak Forward Surge Current	I_{FSM}	5.0	A
Maximum Repetitive Peak Forward Current	I_{FRM}	800	mA
Maximum Forward Voltage at 100 mA , $T_j = T_j \text{ max.}$	V_F	8.5	V
Maximum Reverse Current at Reverse Voltage	I_R	3.0	μA
Maximum Reverse Recovery Time (Note 2)	T_{rr}	0.2	μs
Diode Capacitance ($V_R = 0 \text{ V}$; $f = 1 \text{ MHz}$)	C_d	2	pF
Thermal Resistance - Junction to Ambient	$R_{\theta JA}$	155	K / W
Junction Temperature Range	T_j	- 65 to + 120	°C
Storage Temperature Range	T_{STG}	- 65 to + 120	°C

Notes :

- (1) $T_{tp} = 25 \text{ °C}$, Lead Length 10 mm.
- (2) Measured with $I_F = 100 \text{ mA}$, to $V_R \geq 100\text{V}$

RATING AND CHARACTERISTIC CURVES (BY584)

FIG.1 - REVERSE RECOVERY TIME CHARACTERISTIC

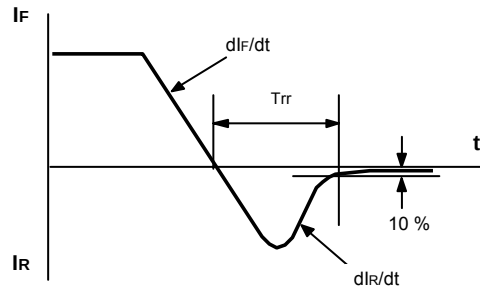


FIG.2 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

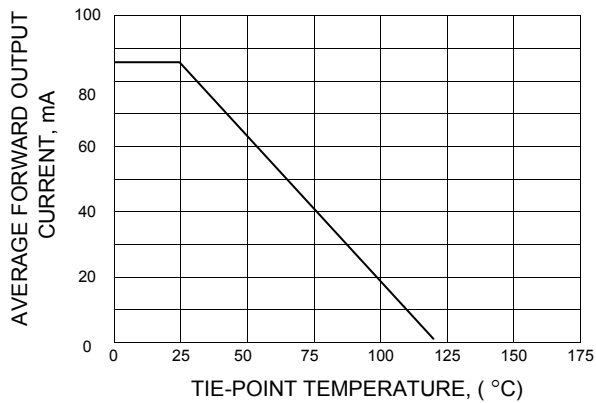


FIG.3 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

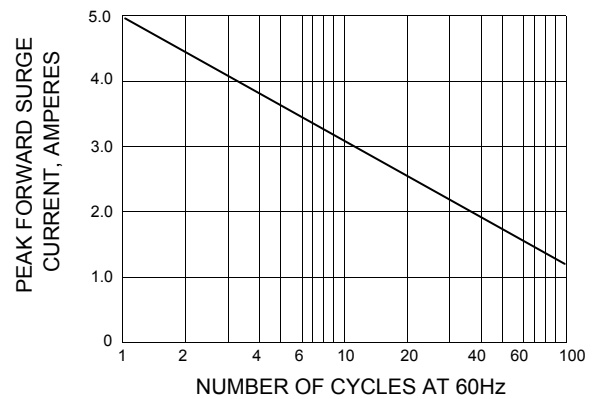


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

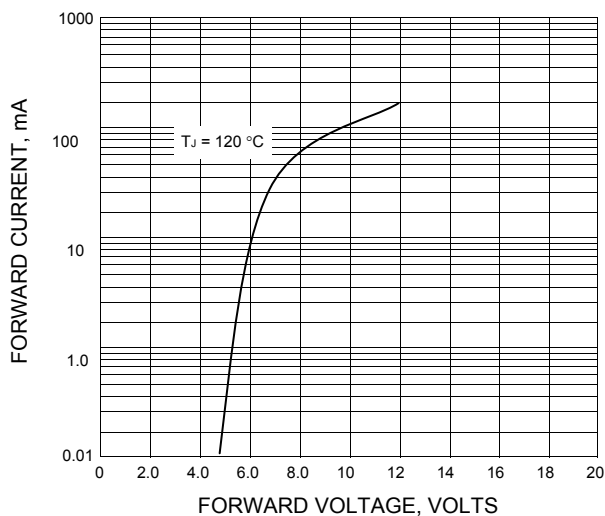


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

