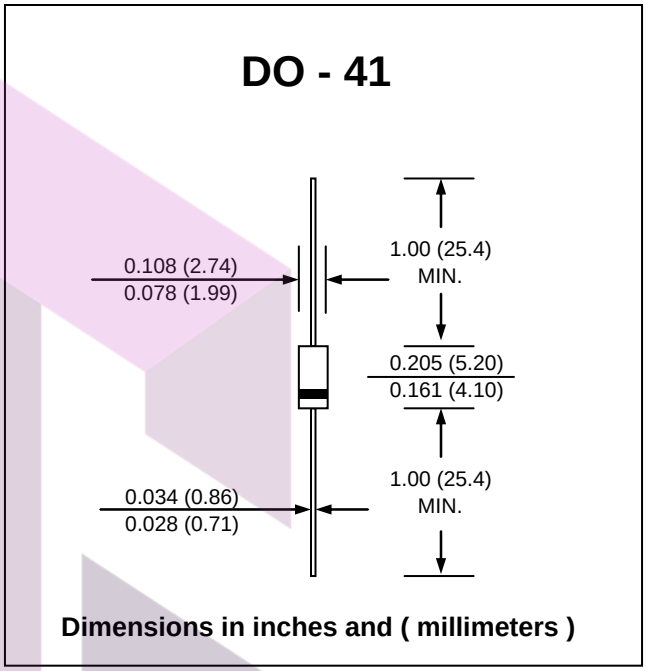
BYV26A - BYV26E

VERY FAST SOFT-RECOVERY AVALANCHE RECTIFIER DIODES

PRV : 200 - 1000 Volts
Io : 1.0 Ampere



FEATURES :

* 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 specifie.
Single phase, half wave, 60 Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

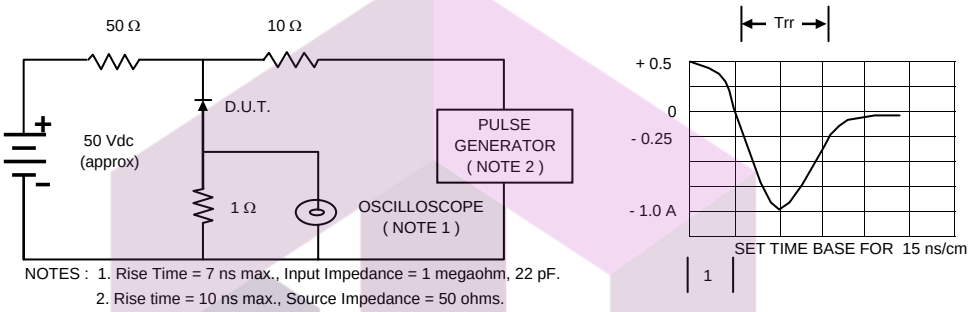
RATING	SYMBOL	BYV26A	BYV26B	BYV26C	BYV26D	BYV26E	BYV26G	UNIT
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	200	400	600	800	1000	1400	V
Maximum Continuous Reverse Voltage	V_R	200	400	600	800	1000	1400	V
Minimum Reverse Avalanche Breakdown Voltage @ 100µA	$V_{(BR)R}$	300	500	700	900	1100	1500	V
Maximum Average Forward Current (Note 1)	$I_{F(AV)}$	1.0						A
Maximum Non-Repetitive Peak Forward Current	I_{FSM}	30						A
Maximum Repetitive Peak Forward Current(Ttp = 85 °C)	I_{FRM}	10						A
Maximum Forward Voltage at 1.0 Amp. ; T_J = 25 °C	V_F	2.5						V
T_J = 175 °C	V_F	1.3						V
Maximum Reverse Current Ta= 25 °C	I_R	5.0						µA
at Reverse Voltage Ta= 100 °C	$I_{R(H)}$	150						µA
Maximum Reverse Recovery Time (Note 2)	Trr	30			75		150	ns
Typical Thermal Resistance - Junction to Ambient	RθJA	100						K/W
Junction Temperature Range	T_J	- 65 to + 175						°C
Storage Temperature Range	T_{STG}	- 65 to + 175						°C

Notes :

(1) Ttp = 85 °C , lead length 10 mm.
(2) Measured with I_F = 0.5 Amp, I_R = 1.0A, Irr = 0.25A.

RATING AND CHARACTERISTIC CURVES (BYV26A - BYV26G)

FIG.1 - REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM



NOTES : 1. Rise Time = 7 ns max., Input Impedance = 1 megaohm, 22 pF.
2. Rise time = 10 ns max., Source Impedance = 50 ohms.
3. All Resistors = Non-inductive Types.

FIG.2 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

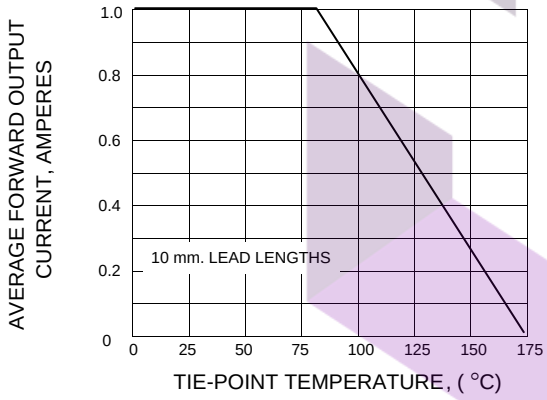


FIG.3 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

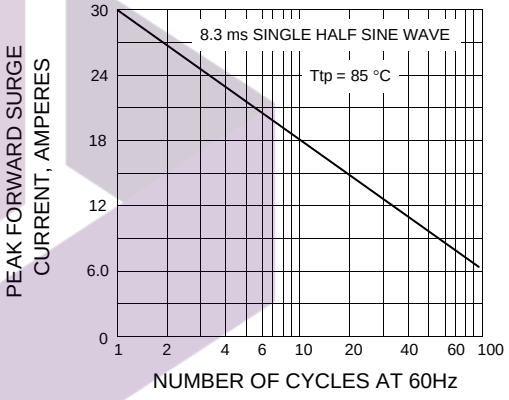


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

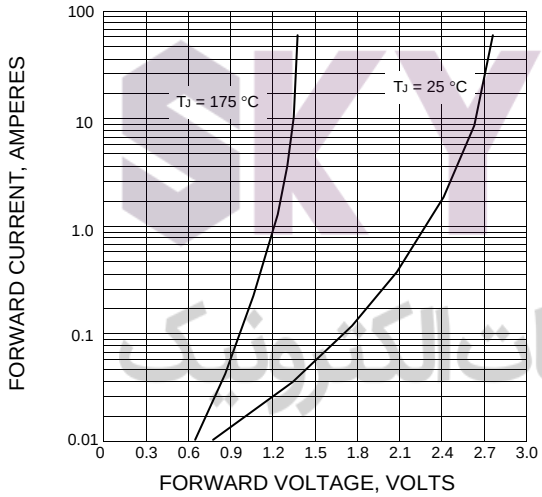


FIG.5 - TYPICAL REVERSE CHARACTERISTICS