RECTRON SEMICONDUCTOR
TECHNICAL SPECIFICATION

B0540W

SCHOTTKY RECTIFIER

VOLTAGE 40 Volts CURRENT 500 mAmpers

FEATURES

* Low Forward Voltage Drop
* Guard Ring Construction for Transient Protection
* High Conductance
* Also Available in Lead Free Version

MECHANICAL DATA

* Case: Molded plastic
* Epoxy: UL 94V-O rate flame retardant
* Lead: MIL-STD-202E method 208C guaranteed
* Mounting position: Any
* Weight: 0.01 gram

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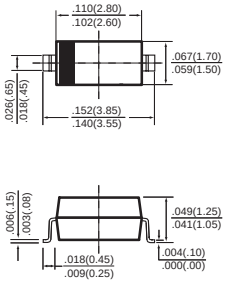

Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings 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%.

MAXIMUM RATINGS (@ T_A=25 °C unless otherwise noted)

RATINGS	SYMBOL	B0540W	UNITS
Maximum Repetitive Peak Reverse Voltage Maximum Working Peak reverse Voltage Maximum DC Blocking Voltage	V_{RRM} V_{RWM} V_R	40	Volts
RMS Reverse Voltage	$V_{R(RMS)}$	28	Volts
Average Forward Rectified Current (At rated $V_{R,T_L=115^oC}$)	I_O	500	mAmps
Peak Forward Surge Current	I_{FSM}	5.5	Amps
Reverse Recovery Time (I_F=I_R=10mA, I_{rr}=0.1XIR, R_L=100Ω)	Trr	4	nS
Capacitance between terminals (V_R=1V, f= 1MHz)	C_T	170	pF
Power Dissipation	P_D	410	mW
Typical Thermal Resistance	$R_{\theta JA}$	244	°C/W
Storage Temperature Range	T_{STG}	-65 to + 150	°C
Voltage Rate of Change	dv / dt	1000	V/uS

ELECTRICAL CHARACTERISTICS (@T_A=25 °C unless otherwise noted)

CHARACTERISTICS		SYMBOL	B0540W	UNITS
Maximum Instantaneous Forward Voltage	@IF=0.5A @IF=1A	V_F	0.550 0.68	Volts
Maximum Instantaneous Reverse Current	@VR=20V @VR=40V	I_R	10 20	uAmps
Minimum Reverse Breakdown Voltage	@IR=20uA	$V_{(BR)R}$	40	Volts

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RATING AND CHARACTERISTICS CURVES (B0540W)

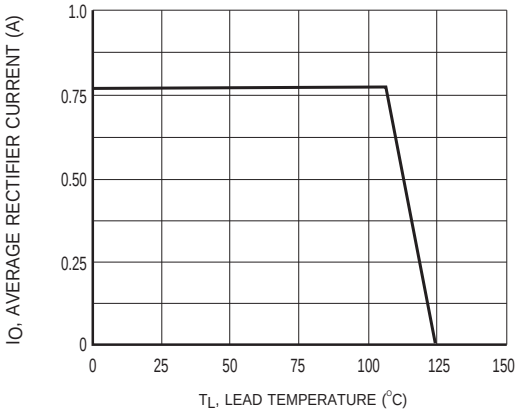

FIG.1 Forward Current Derating Curve

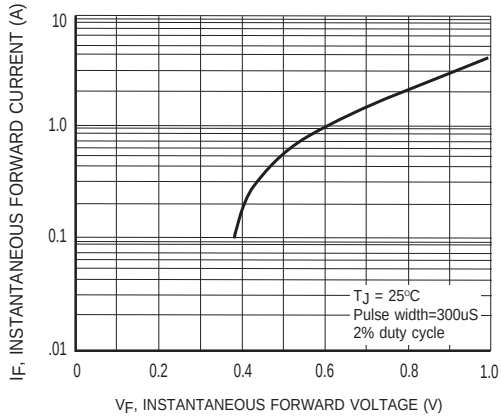

FIG.2 Typical Forward Characteristics

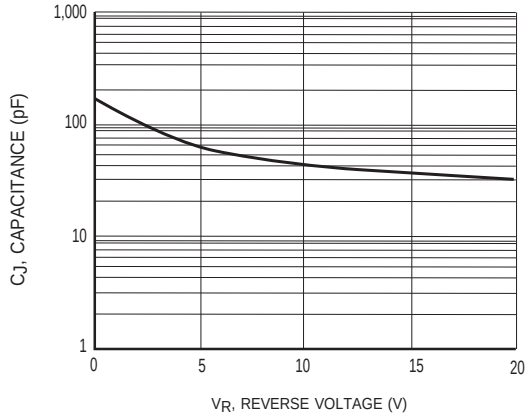

FIG.3 Typ. Junction Capacitance VS. Reverse Voltage

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