RECTRON SEMICONDUCTOR
TECHNICAL SPECIFICATION

CMBD1201 THUE CMDB1205

SMALL SIGNAL DIODE

VOLTAGE RANGE 75 Volts CURRENT 215 mAmpere

FEATURES

* Compact surface mount with same foot print as mini-melf
* High Breakdown Voltage
* Fast Switching Speed
* 400mW Power Dissipation
* General Purpose Switching Applications
  High Conductance

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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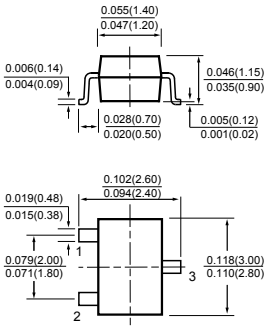

Dimensions in inches and (millimeters)

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

RATINGS		SYMBOL	CMBD1201/1202/1203/1204/1205	UNITS
Non-Repetitive Peak Reverse Voltage		V_{RM}	100	Volts
Maximum R epetitive Peak Reverse Voltage Maximum Working Peak reverse Voltage Maximum DC Blocking Voltage		V_{RRM} V_{RWM} V_R	75	Volts
Maximum RMS Voltage		V_{RMS}	53	Volts
Maximum Forward Comtinuous Current		I_{FM}	500	mAmps
Maximum Average Forward Rectified Current		I_O	215	mAmps
Non-Repetitive Peak Forward Surge Current	@t=1.0uS @t=1.0mS @t=1.0S	I_{FSM}	4.0 1.0 0.5	Amps
Typical Reverse Recovery Time		Trr	4	nS
Typical Junction Capacitance		C_T	2	pF
Typical Thermal Resistance		$R_{\theta JA}$	500	K/W
Operating and Storage Temperature Range		T_J, T_{STG}	-65 to + 150	°C

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

CHARACTERISTICS		SYMBOL	CMBD1201/1202/1203/1204/1205	UNITS
Maximum Instantaneous Forward Voltage	@IF=10mA @IF=200mA	V_F	0.855 1.05	Volts
Maximum Instantaneous Reverse Current	@VR=20V @VR=75V @VR=25V,Tj=150°C	I_R	25 5 30	nAmps uAmps

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RATING AND CHARACTERISTICS CURVES (CMBD1201 THUE CMBD1205)

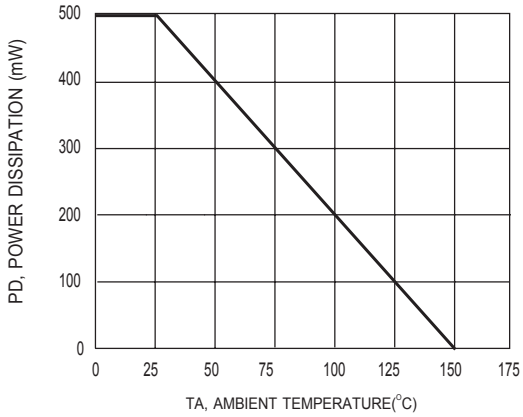


FIG.1 FORWARD DERATING CURVE

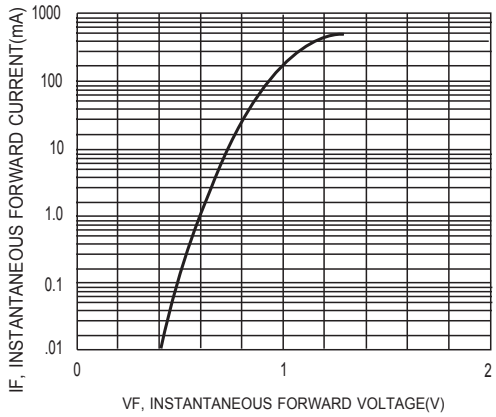


FIG.2 FORWARD CHARACTERISTICS

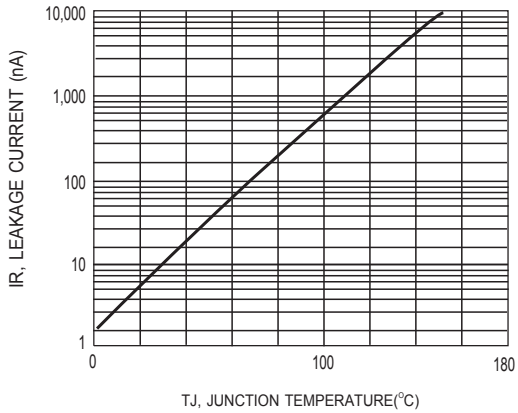
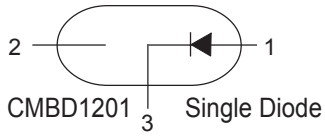


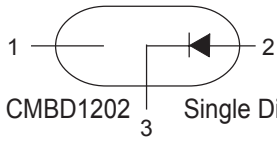
FIG.3 LEAKAGE CURRENT VS. JUNCTION TEMPERATURE

Marking

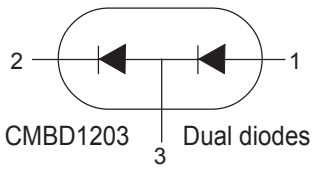
CMBD1201 – 24
CMBD1202 – 25
CMBD1203 – 26
CMBD1204 – 27
CMBD1205 – 28



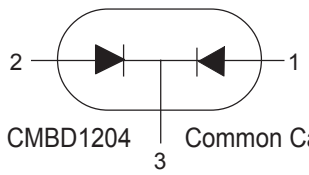
CMBD1201 Single Diode



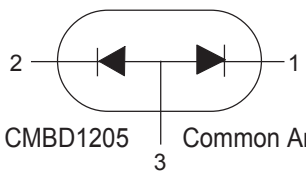
CMBD1202 Single Diode



CMBD1203 Dual diodes in Series



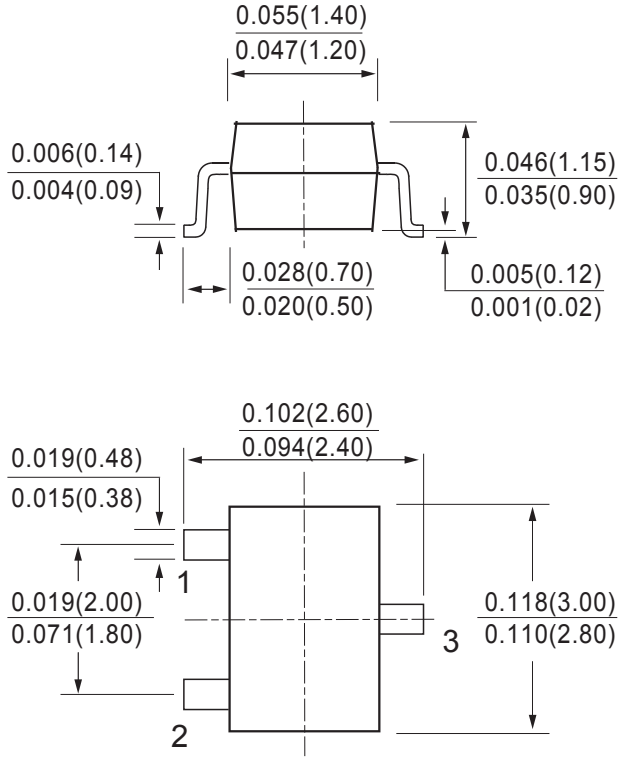
CMBD1204 Common Cathode



CMBD1205 Common Anode

PACKAGE OUTLINE DETAILS

ALL DIMENSIONS IN Inches and (millimeters)



SOT-23 CASE

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