

TECHNICAL DATA
DATA SHEET 186, REV. D.1

HERMETIC ULTRAFAST RECOVERY RECTIFIER

DESCRIPTION: 200 VOLT, 15 AMP, 35 NANOSECOND, HERMETIC RECTIFIER IN A TO-254 PACKAGE.
S-100 (JANTX), SS-100 (JANS) SCREENING OPTIONS AVAILABLE.

MAX RATINGS/ELECTRICAL CHARACTERISTICS ALL RATINGS ARE AT $T_A = 25\text{ }^\circ\text{C}$ UNLESS OTHERWISE SPECIFIED.

RATING		SYMBOL	MAX.	UNITS
PEAK INVERSE VOLTAGE (PER LEG)	$I_R = 500\ \mu\text{A}$	PIV	200	Volts
MAXIMUM FORWARD VOLTAGE DROP (PER LEG)	$I_F = 20\ \text{A}, T_A = 25\text{ }^\circ\text{C}$ $I_F = 10\ \text{A}, T_A = 25\text{ }^\circ\text{C}$ $I_F = 10\ \text{A}, T_A = -55\text{ }^\circ\text{C}$	V_F	1.2 1.0 1.15	Volts
MAXIMUM DC OUTPUT CURRENT ($T_C = 100\text{ }^\circ\text{C}$)		I_O	15	Amps
PEAK SINGLE CYCLE SURGE CURRENT $t_p = 8.3\ \text{msec.}$		I_{FSM}	150	Amps
MAXIMUM REVERSE RECOVERY TIME ($I_F = 1.0\ \text{A}, I_R = 1.0\ \text{A}, I_{RR} = 0.1\ \text{A}$)		t_{RR}	35	nsec
MAXIMUM REVERSE CURRENT I_R @ PIV (PER LEG)	$T_A = 25\text{ }^\circ\text{C}$ $T_A = 100\text{ }^\circ\text{C}$	I_R	10 1.0	μA mA
MAXIMUM THERMAL RESISTANCE (PER LEG)		$R_{\theta JC}$	2.3	$^\circ\text{C/W}$
MAXIMUM OPERATING TEMPERATURE RANGE		-	-65 to +175	$^\circ\text{C}$
JUNCTION CAPACITANCE $V_R = 10\ \text{Vdc}, f = 1\ \text{MHz}$ $V_{SIG} = 50\ \text{mV (p-p) (Max)}$		C_J	150	pF

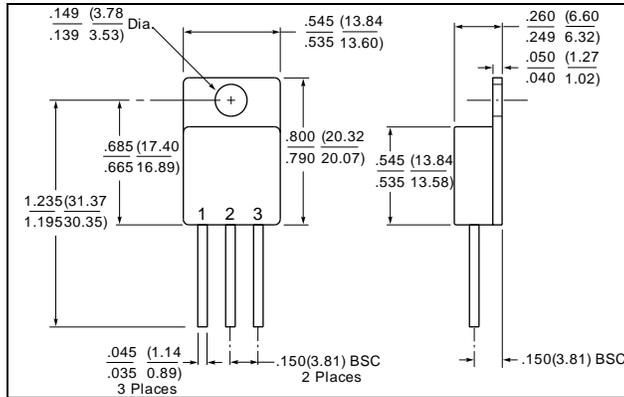
* Suffix R denotes common anode version.

* Suffix C denotes single diode version.

SENSITRON

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MECHANICAL DIMENSIONS: In Inches / mm



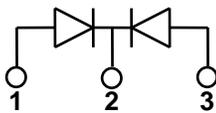
TO-25

PINOUT TABLE

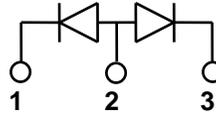
TYPE	PIN 1	PIN 2	PIN 3
DUAL RECTIFIER, COMMON CATHODE	ANODE 1	COMMON CATHODE	ANODE 2
DUAL RECTIFIER, COMMON ANODE (R)	CATHODE 1	COMMON ANODE	CATHODE 2
SINGLE RECTIFIER (C)	CATHODE 1	NO CONNECTION	ANODE 1

SCHMATIC

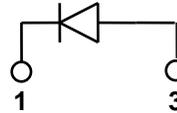
COMMON CATHODE



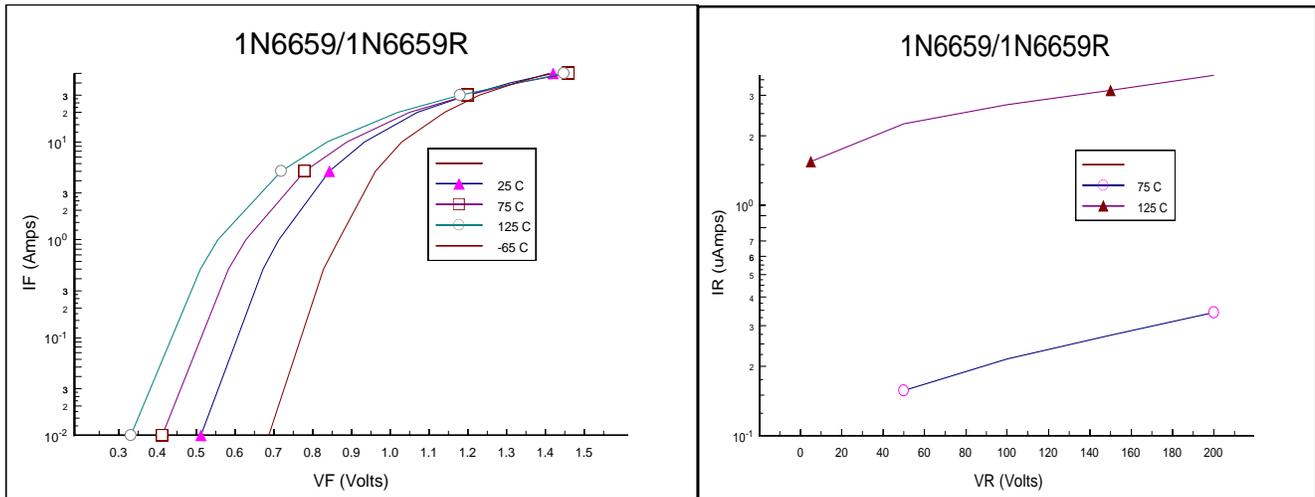
COMMON ANODE



SINGLE



CHARACTERISTICS CURVES



SENSITRON

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PART ORDERING INFORMATION:

1N6659 X XX X

Part Number

Pinout:

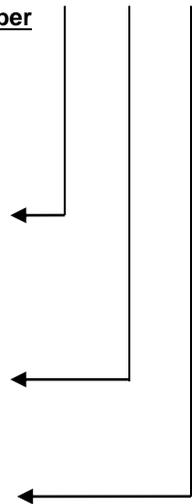
Suffix	Pin 1	Pin 2	Pin 3
blank	Anode 1	Common Cathode	Anode 2
R	Cathode 1	Common Anode	Cathode 2
C	Cathode 1	No Connection	Anode 1

Screening Level (blank is no screening):

Suffix	Screened in Accordance with:
blank	No screening level
S	MIL-PRF-19500, TXV Level
SS	MIL-PRF-19500, S Level

QCI (blank is no QCI):

Suffix	Inspection
blank	No QCI
Q	MIL-PRF-19500 QCI



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