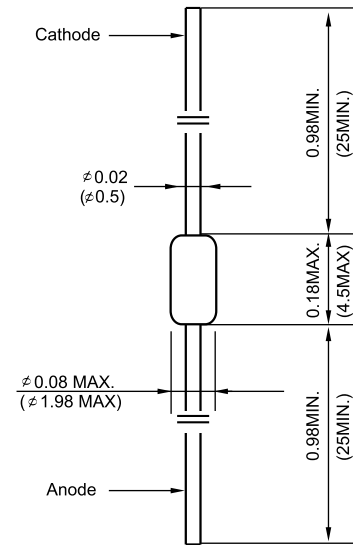


# MA64

Silicon Bidirectional Diacs

**VOLTAGE RANGE: 28-45 V**

**DO-35**



Dimensions in inches and (millimeters)

## Features

- ◇ The three layer,two terminal,axial lead,hermetically sealed diacs are designed specifically for triggering thyristors.They demonstrate low breakover current at breakover voltage as they withstand peak pulse current,The breakover symmetry is within three volts(MA64). These diacs are intended for use in thyristors phase control,circuits for lamp dimming, universal motor speed control,and heat control.

## ABSOLUTE RATINGS

Parameters	Symbols	MA64	UNITS
Power dissipation on printed $T_A=50^{\circ}\text{C}$ circuit (L=10mm)	$P_c$	150.0	mW
Repetitive peak on-state current $t_p=20\ \mu\text{S}$ $f=120\text{Hz}$	$I_{TRM}$	2.0	A
Operating junction temperature	$T_J$	-40--- +125	$^{\circ}\text{C}$
Storage temperature	$T_{STG}$	-40--- +125	$^{\circ}\text{C}$

## ELECTRICAL CHARACTERISTICS

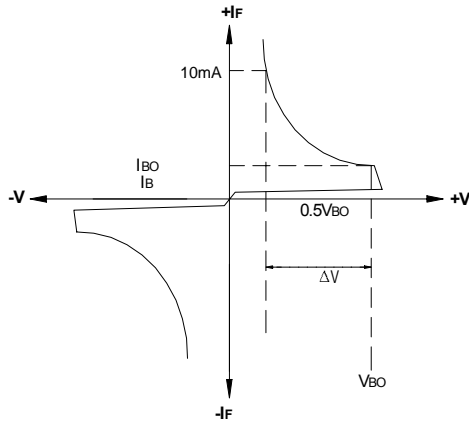
Parameters	Test Conditions	MA64	UNITS
Breakover voltage (NOTE 1)	$C=22\text{nf}$ (NOTE 2) See FIG.1	Min	28
		Typ	32
		Max	36
Breakover voltage symmetry	$C=22\text{nf}$ (NOTE 2) See FIG.1	Max	$\pm 3.0$
Dynamic breakover voltage (NOTE 1)	$\Delta I=(I_{BO}\text{ to }I_F=10\text{mA})$ See FIG.1	Min	5.0
Output voltage (NOTE 1)	See FIG.2	Min	5.0
Breakover current (NOTE 1)	$C=22\text{nf}$ (NOTE 2)	Max	100.0
Rise time (NOTE 1)	See FIG.3	Typ	1.5
Leakage current (NOTE 1)	$V_R=0.5V_{BO}$ See FIG.1	Max	10.0

NOTE: 1.Electrical characteristics applicable in both forward and reverse directions.

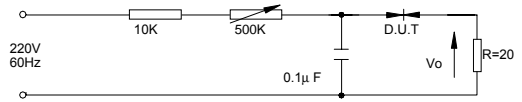
2.Connected in parallel with the devices

## Ratings and Characteristic Curves

**FIG.1--VOLTAGE-CURRENT CHARACTERISTIC CURVE**

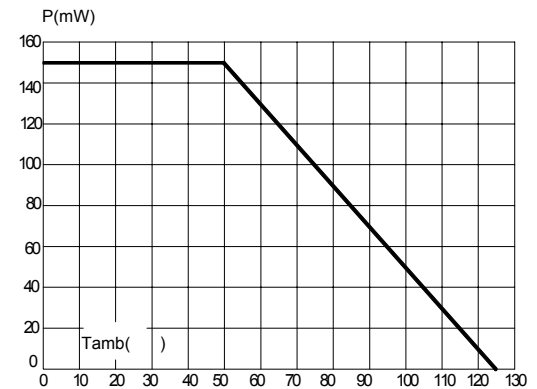
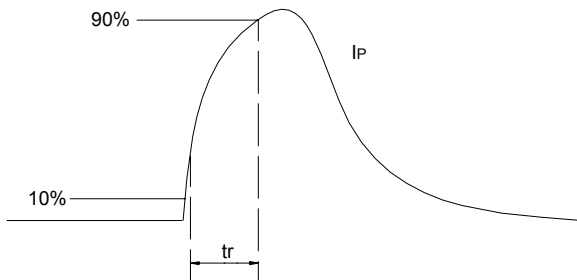


**FIG.2--TEST CIRCUIT FOR OUTPUT VOLTAGE**



**FIG.3-- TEST CIRCUIT SEE FIG.2 ADJUST R FOR  $I_P=0.5A$**

**FIG.4--POWER DISSIPATION VERSUS AMBIENT TEMPERATURE (MAXIMUM VALUES)**



**FIG.5--RELATIVE VARIATION OF  $V_{Bo}$  VERSUS JUNCTION TEMPERATURE(TYPICAL VALUES)**

**FIG.6--PEAK PULSEE CURRENT VERENT VERSUS PULSE DURATION(MAXIMUM VALUES)**

