SILICON BIDIRECTIONAL DIACS

VOLTAGE RANGE: 28-45 V

FEATURES

◇ The three layer,two termnal,hermetically sealed diacs
are designed specifically for triggering thyristors.
They demonstrate low break over current at break
over voltage as they withstand peak pulse current,
The breakover symmetry is within three volts(DB6).
These diacs are intended for use in thyrisitors
phase control,circuits for lamp dimming,universal
motor speed control,and heat control.

MINI-MELF

Cathode indification

1.5 ± 0.1

0.4 ± 0.1

$3.4 ^{+0.3}_{-0.1}$
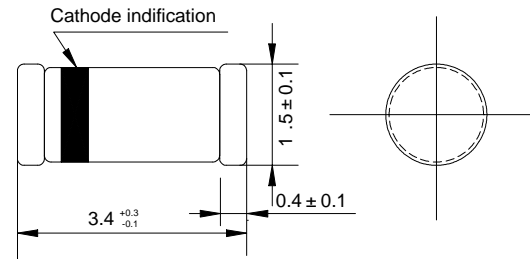
Dimensions in millimeters

ABSOLUTE RATINGS

Parameters	Symbols	DB3M,DB4M	UNITS
Power dissipation on printed $T_A=50^oC$	Pc	150.0	mW
Repetitive peak on-state current tp=20 μ S f=120Hz	I_{TRM}	2.0	A
Operating junction temperature	T_J	-40--- +125	^oC
Storage temperature	T_{STG}	-40--- +125	^oC

ELECTRICAL CHARACTERISTICS

| Parameters		Test Conditions		DB3M	DB4M	UNITS
Breakover voltage (NOTE 1)	V_{BO}	C=22nf(NOTE 2) See FIG.1	Min	28	35	V
			Typ	32	40	
			Max	36	45	
Breakover voltage symmetry	I+V_{BO} I- I-V_{BO}I	C=22nf(NOTE 2) See FIG.1	Max	±3.0		V
Dynamic breakover voltage (NOTE 1)	I± △ VI	△ I=(I_{BO} to I_F=10mA) See FIG.1	Min	5.0		V
Output voltage (NOTE 1)	V_o	See FIG.2	Min	5.0		V
Breakover current (NOTE 1)	I_{BO}	C=22nf(NOTE 2)	Max	100.0		μ A
Rise time (NOTE 1)	t_r	See FIG.3	Typ	1.5		μ S
Leakage current (NOTE 1)	I_R	V_R=0.5 V_{BO} See FIG.1	Max	10.0		μ A

NOTE: 1. Electrical characteristics applicable in both forward and reverse dirctions.
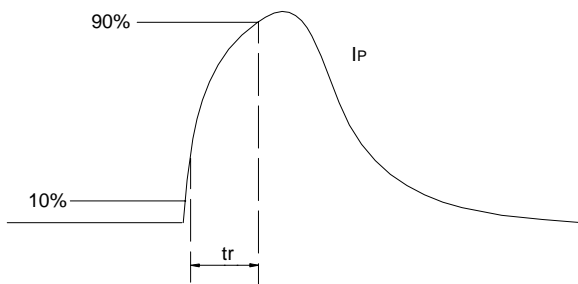
2. Connected in parallel with the devices
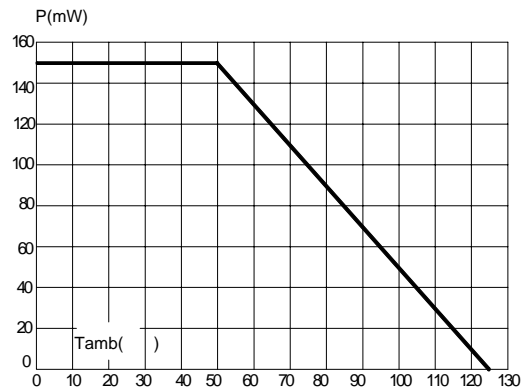
FIG.1--VOLTAGE-CURRENT CHARACTERISTIC CURVE
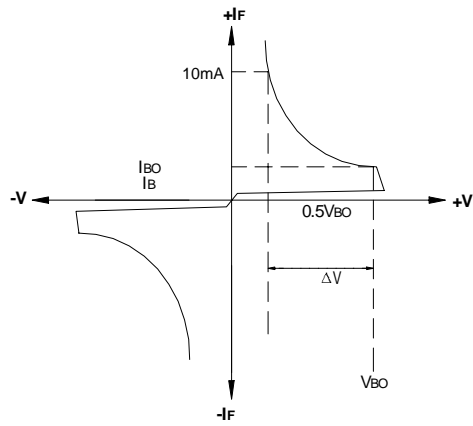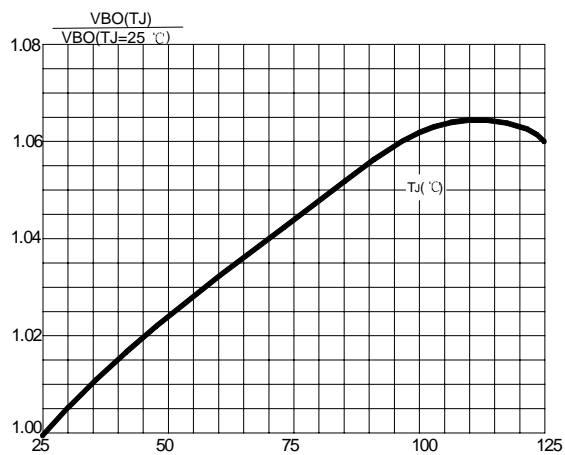
FIG.2--TEST CIRCUIT FOR OUTPUT VOLTAGE
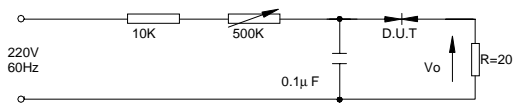
FIG.3-- TEST CIRCUIT SEE FIG.2 ADJUST R FOR I$_P$=0.5A

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)