



# DB4

## BIDIRECTIONAL TRIGGER DIODE

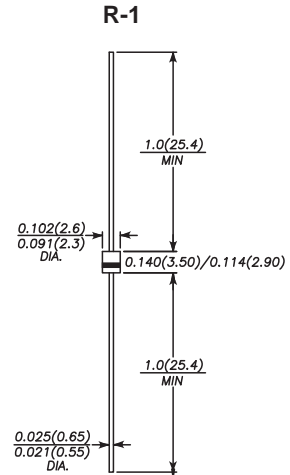
Reverse Voltage - 40Volts Power: 150mW

### FEATURES

The plastic package carries Underwriters Laboratory  
 VBO:35-45V version  
 Low breakover current  
 High temperature soldering guaranteed  
 250°C/10 seconds, 0.375" (9.5mm) lead length,  
 5 lbs. (2.3kg) tension

### MECHANICAL DATA

**Case:** JEDEC R-1 molded plastic body  
**Terminals:** Plated axial leads, solderable per MIL-STD-750,  
 Method 2026  
**Mounting Position:** Any  
**Weight:** 0.007 ounce, 0.20gram



Dimensions in inches and (millimeters)

### MAXIMUM RATINGS AND CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

	TEST CONDITION	SYMBOLS	VALUE			UNITS
			Min.	Typ.	Max.	
Breakover voltage *	C=22nF **	$V_{BO}$	35	40	45	VOLTS
Breakover voltage symmetry	C=22nF **	$ I+V_{BO}  -  I-V_{BO} $	-3		3	VOLTS
Dynamic breakover voltage *	(NOTE 1)	$  \Delta V \pm I  $	5			VOLTS
Output voltage *	DIAGRAM2	$V_o$	5			VOLTS
Breakover current *	C=22nF **	$I_{bo}$			100	$\mu A$
Rise time *	DIAGRAM3	$t_r$		1.5		$\mu S$
Leakage current *	$V_R=0.5V_{BO}$	$I_B$			10	$\mu A$
Power dissipation on printed circuit	$T_A=65^\circ C$	$P_d$			150	mW
Repetitive peak on-state current	$t_p=20\mu s$ $f=100Hz$	$I_{TRM}$			2	A
Thermal Resistances from Junction to ambient		$R_{\theta JA}$			400	$^\circ C/W$
Thermal Resistances from Junction to lead		$R_{\theta JL}$			150	
Operating junction and storage temperature range		$T_J, T_{STG}$	-40		125	$^\circ C$

\* :Electrical characteristic appoicaboe in forward and reverse directions.

\*\* :Connected in parallel with the devices.

Note 1:  $I_{bo}$  from  $I_{bo}$  to 10mA



# RATINGS AND CHARACTERISTIC CURVES DB4

DIAGRAM 1: CURRENT-VOLTAGE CHARACTERISTICS

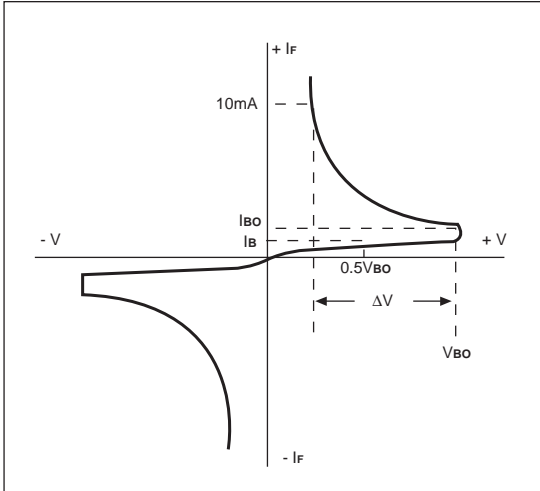


FIG. 1-POWER DISSIPATION VERSUS AMBIENT TEMPERATURE(MAXIMUM VALUES)

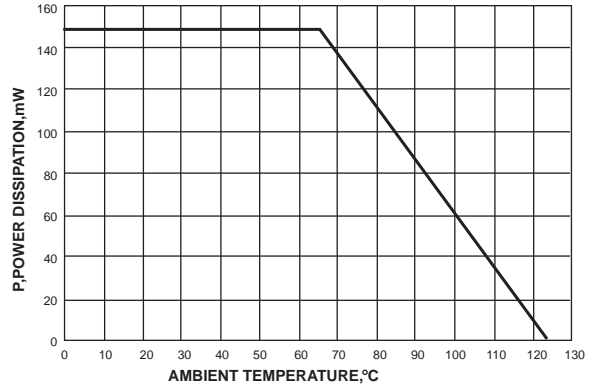


DIAGRAM 2: TEST CIRCUIT OUTPUT VOLTAGE

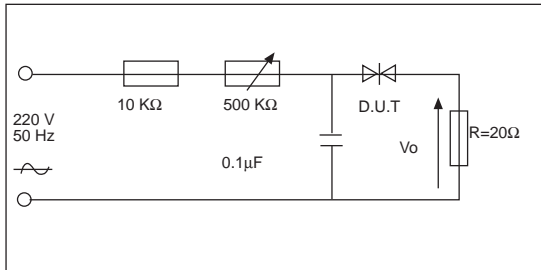


FIG. 2-PEAK PULSE CURRENT VERSUS PULSE DURATION (MAXIMUM VALUES)

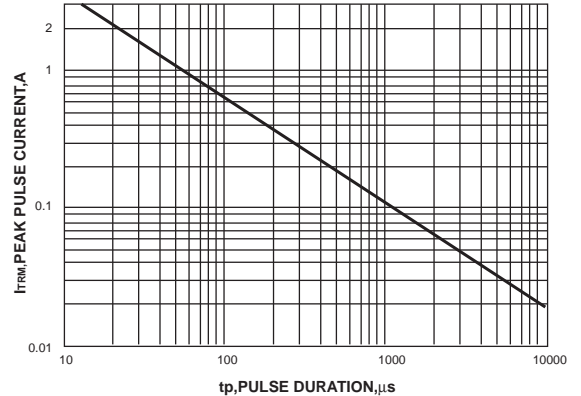


DIAGRAM 3: TEST CIRCUIT SEE DIAGRAM 2. ADJUST R FOR I\_P=0.5A

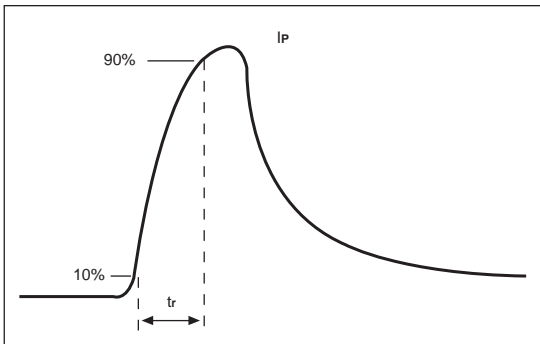


FIG. 3-RELATIVE VARIATION OF V\_BO VERSUS JUNCTION TEMPERATURE(TYPICAL VALUES)

