

(CRT HORIZONTAL DEFLECTION) HIGH VOLTAGE DAMPER DIODE

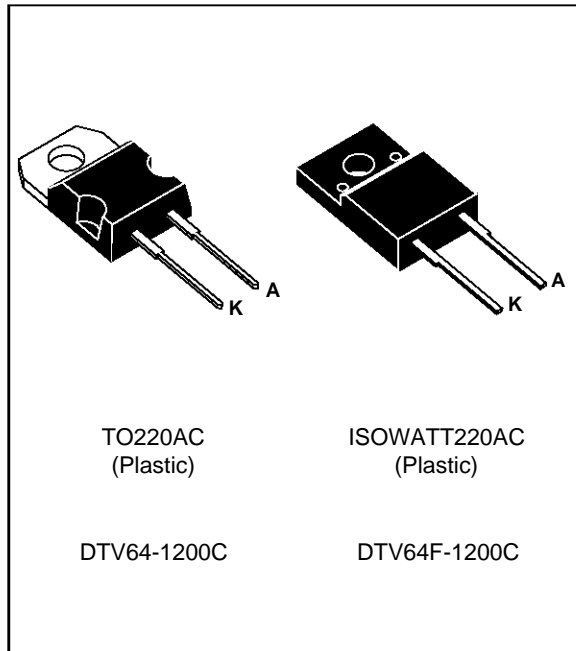
TENTATIVE DATASHEET

FEATURES

- HIGH BREAKDOWN VOLTAGE CAPABILITY
- MEDIUM & HIGH FREQUENCY OPERATION
- SPECIFIED TURN ON SWITCHING CHARACTERISTICS
- TYPICAL TOTAL LOSSES : 3 W
($I_{Fpeak} = 6\text{ A}$, $F = 64\text{ kHz}$)
- SUITABLE WITH **BUH** TRANSISTORS SERIES
- INSULATED VERSION (ISOWATT220AC) :
Insulating voltage = 2000 V DC
Capacitance = 12 pF

DESCRIPTION

High voltage diode especially designed for horizontal deflection stage in standard and high resolution displays for TV's and monitors.
This device is packaged in TO220AC or ISOWATT220AC.



ABSOLUTE MAXIMUM RATINGS

Symbol	Parameter		Value	Unit	
V_{RRM}	Repetitive peak reverse voltage		1200	V	
V_{RWM}	Repetitive working voltage		1200	V	
$I_F(RMS)$	RMS forward current		20	A	
$I_F(AV)$	Average forward current $\delta = 0.5$	TO220AC	$T_c = 120^\circ\text{C}$	6	A
		ISOWATT220AC	$T_c = 90^\circ\text{C}$	6	
I_{FSM}	Surge non repetitive forward current		$t_p = 10\text{ms}$ sinusoidal	100	A
T_{stg} T_j	Storage and junction temperature range		- 40 to + 150 - 40 to + 150	$^\circ\text{C}$ $^\circ\text{C}$	

DTV64(F)-1200C

THERMAL RESISTANCES

Symbol	Parameter		Value	Unit
Rth (j-c)	Junction to case	TO220AC	2.2	°C/W
		ISOWATT220AC	5.0	

ELECTRICAL CHARACTERISTICS

STATIC CHARACTERISTICS

Symbol	Test Conditions		Min.	Typ.	Max.	Unit
I _R *	T _j = 25°C	V _R = V _{RWM}			200	μA
	T _j = 100°C				2.0	mA
V _F **	T _j = 25°C	I _F = 6 A			2.0	V
	T _j = 100°C	I _F = 6 A			1.8	

Pulse test : * t_p = 5 ms, duty cycle < 2 %
 ** t_p = 380 μs, duty cycle < 2 %

RECOVERY CHARACTERISTICS

Symbol	Test Conditions			Min.	Typ.	Max.	Unit
trr (1)	T _j = 25°C	I _F = 1 A V _R = 30 V	dI _F /dt = -50 A/μs			100	ns
trr (1)	T _j = 100°C		dI _F /dt = -15 A/μs		120		ns
trr	T _j = 25°C	I _F = 100mA	I _R = 100mA		70		ns

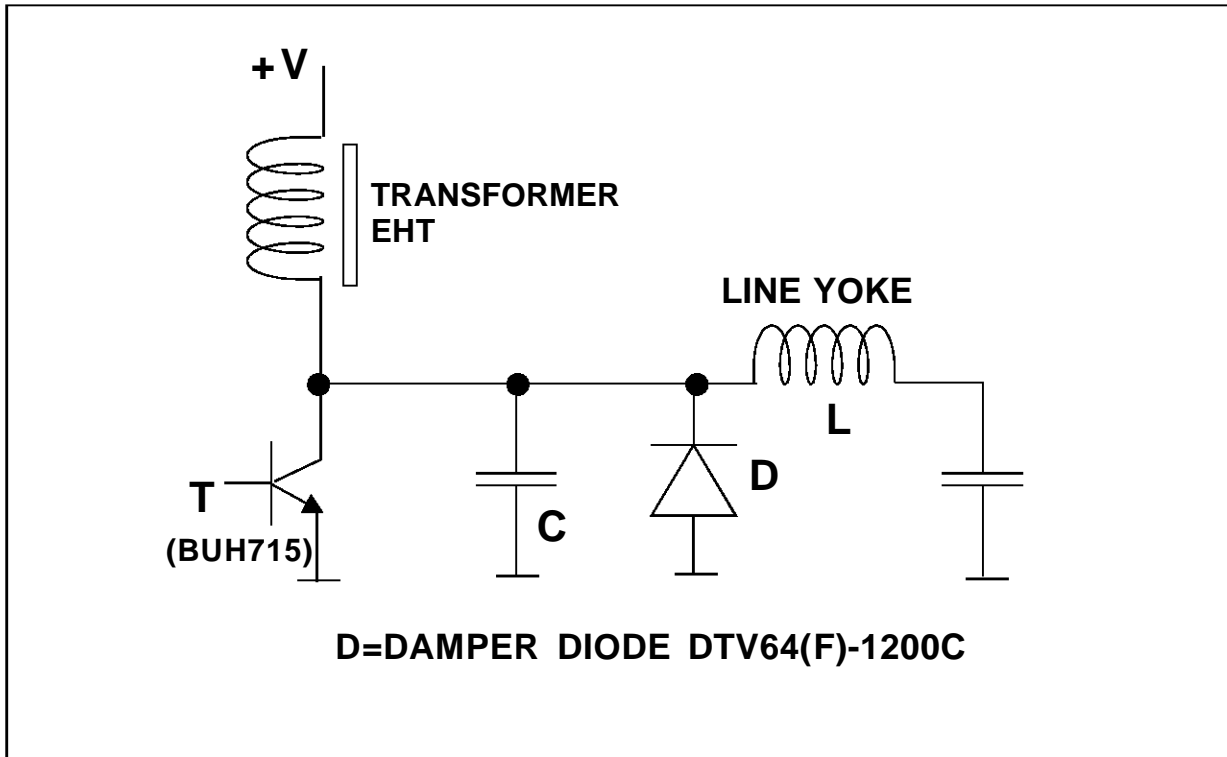
TURN ON SWITCHING CHARACTERISTICS

Symbol	Test Conditions			Min.	Typ.	Max.	Unit
t _{FR} (2)	T _j = 100°C	I _F = 6 A	dI _F /dt = 80 A/μs		0.5		μs
V _{FP} (2)		V _{FR} = 1.1 x V _F			27		V

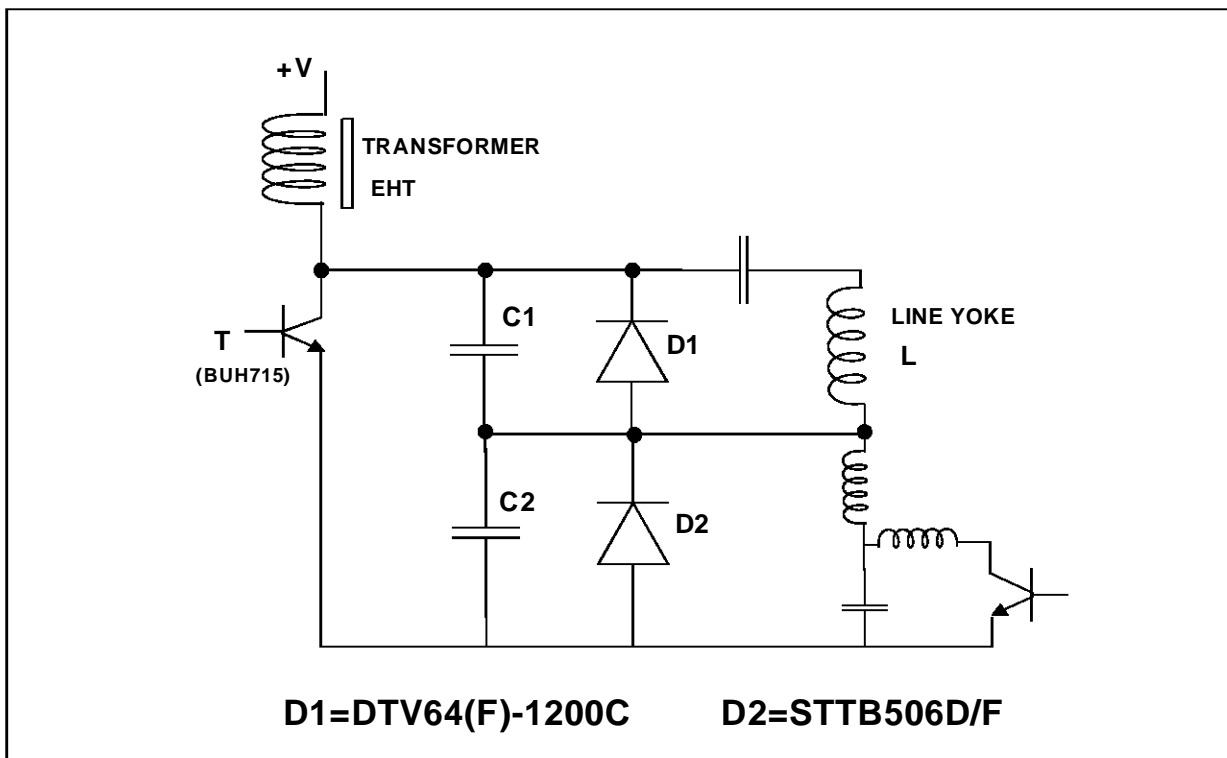
- (1) Test following Jedec Standard
 (2) Test representative of the application

To evaluate the conduction losses use the following equations :
 $V_F = 1.5 + 0.050 I_F$ $P = 1.5 \times I_{F(AV)} + 0.050 \times I_{F(RMS)}^2$

BASIC HORIZONTAL DEFLECTION CIRCUIT



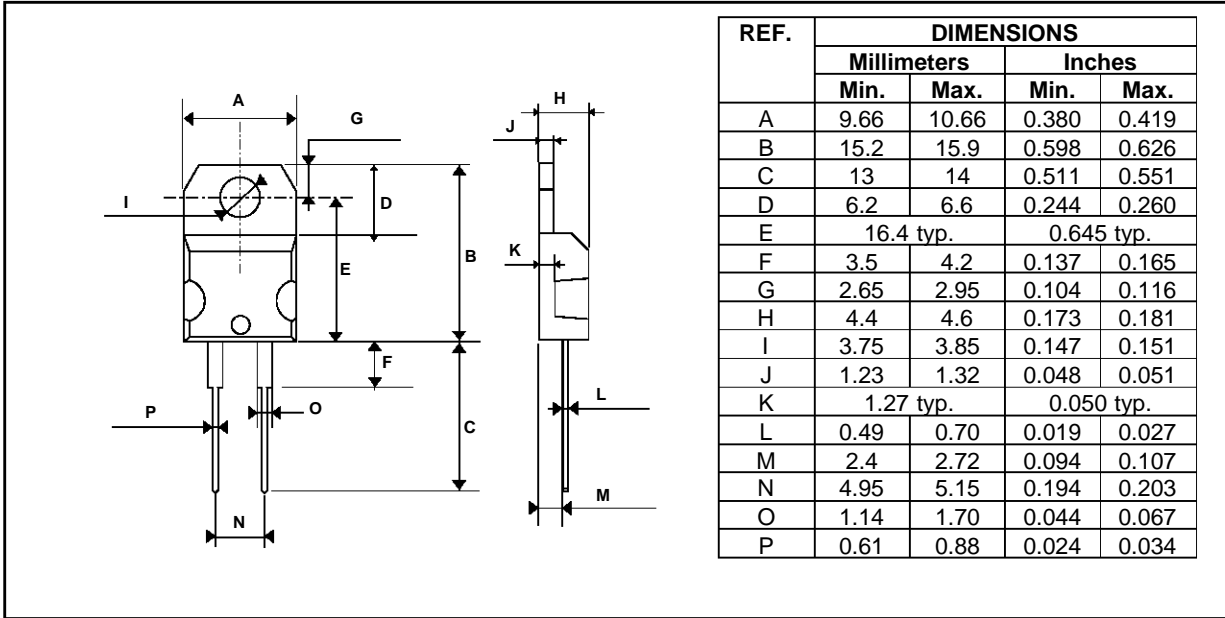
BASIC E-W DIODE MODULATOR CIRCUIT



DTV64(F)-1200C

PACKAGE MECHANICAL DATA

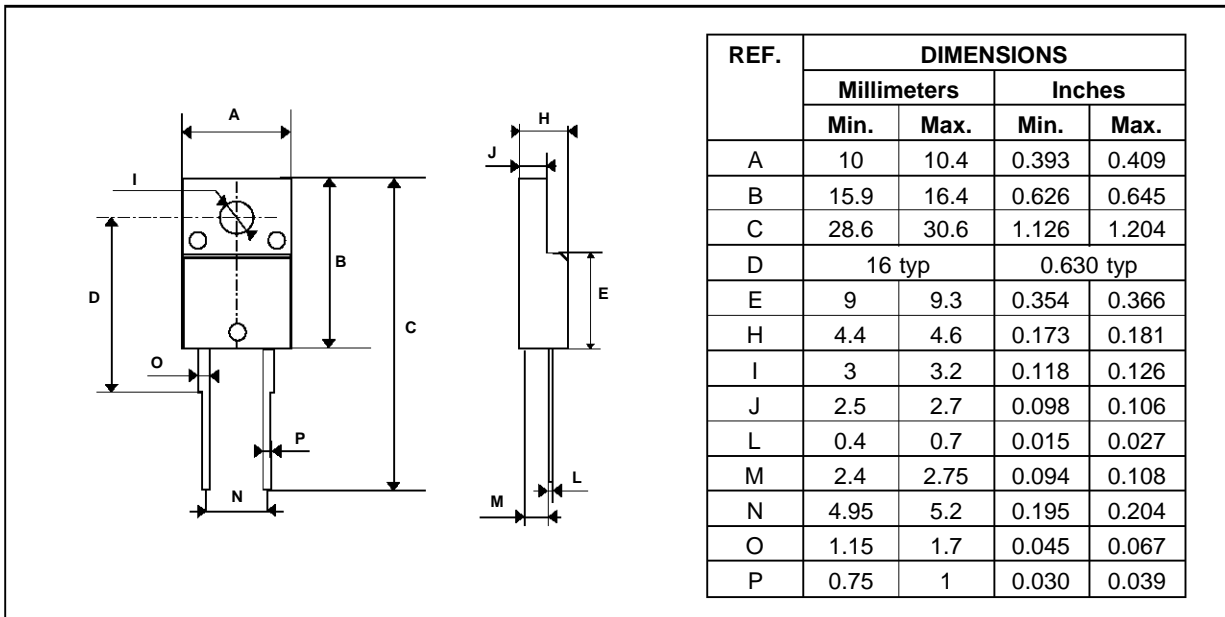
TO220AC Plastic



Cooling method : C
 Marking : Type number
 Weight : 1.9 g
 Recommended torque value : 0.55m.N
 Maximum torque value : 0.70m.N

PACKAGE MECHANICAL DATA)

ISOWATT220AC Plastic



Cooling method : C
 Marking : Type number
 Weight : 2 g
 Recommended torque value : 0.55m.N
 Maximum torque value : 0.70m.N

Information furnished is believed to be accurate and reliable. However, SGS-THOMSON Microelectronics assumes no responsibility for the consequences of use of such information nor for any infringement of patents or other rights of third parties which may result from its use. No license is granted by implication or otherwise under any patent or patent rights of SGS-THOMSON Microelectronics. Specifications mentioned in this publication are subject to change without notice. This publication supersedes and replaces all information previously supplied. SGS-THOMSON Microelectronics products are not authorized for use as critical components in life support devices or systems without express written approval of SGS-THOMSON Microelectronics.

© 1994 SGS-THOMSON Microelectronics - All Rights Reserved

Purchase of I²C Components by SGS-THOMSON Microelectronics, conveys a licence under the Philips I²C Patent. Rights to use these components in an I²C system, is granted provided that the system conforms to the I²C Standard Specification as defined by Philips.

SGS-THOMSON Microelectronics GROUP OF COMPANIES
Australia - Brazil - France - Germany - Hong Kong - Italy - Japan - Korea - Malaysia - Malta - Morocco - The Netherlands -
Singapore - Spain - Sweden - Switzerland - Taiwan - Thailand - United Kingdom - U.S.A