2N2646
2N2647

SILICON UNIJUNCTION TRANSISTORS

Silicon Planar Unijunction Transistors have a structure resulting in lower saturation voltage, peak-point current and valley current as zell as a much higher base-one peak pulse voltage. In addition, these devices are much faster switches.

The 2N2646 is intended for general purpose industrial applications where circuit economy is of primary importance, and is ideal for use in firing circuits for Silicon Controlled Rectifiers and other applications where a guaranteed minimum pulse amplitude is required. The 2N2647 is intended for applications where a low emitter leakage current and a low peak point emitter current (trigger current) are required and also for triggering high power SCR's.

ABSOLUTE MAXIMUM RATINGS

T_j=125°C unless otherwise noted

Symbol	Ratings	2N2646 2N2647	Unit
V_{B2E}	Emitter-Base2 Voltage	30	V
I_e	RMS Emitter Current	50	mA
i_e	Peak Pulse Emitter Current *	2	A
V_{B2B1}	Interbase Voltage	35	V
P_D	RMS power Dissipation	300	mW
T_J	*Junction Temperature*	-65 to +125	°C
T_{Stg}	Storage Temperature	-65 to +150	°C

Capacitor discharge – 10µF or less, 30volts or less.

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ELECTRICAL CHARACTERISTICS

TC=25°C unless otherwise noted

Symbol	Ratings		Min.	Typ.	Max.	Unit
η	Intrinsic stand-off ratio V_{B2B1} = 10V	**2N2646**	0.56	-	0.75	-
		2N2647	0.68	-	0.82	
R_{BBO}	Interbase Resistance , V_{B2B1} = 3V		4.7	-	9.1	**KΩ**
$V_{EB1(sat)}$	Emitter Saturation Voltage V_{B2B1} = 10V **,** I_E = 50 mA		-	-	2.5	**V**
$I_{B2(MOD)}$	Modulated Interbase Current V_{B2B1} = 10V **,** I_E = 50 mA		-	15	-	**V**
I_{EO}	Emitter Revers Current V_{B2E} = 30 V , I_{B1} = 0		-	-	12	**µA**
$V_{(BR)B1E}$	Base 1 Emitter breakdown Voltage I_E =100 µA		30	-	-	**V**
I_V	Valley Current , V_{B2B1} = 20 V	**2N2646**	4	-	-	**mA**
		2N2647	8	-	-	
I_P	Peak Current , V_{B2B1} = 25 V	**2N2646**	-	-	5	**µA**
		2N2647	-	-	2	

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MECHANICAL DATA CASE TO-18

Base 2 connected to case.

PIN	DESCRIPTION
1	emitter
2	base 1
3	base 2

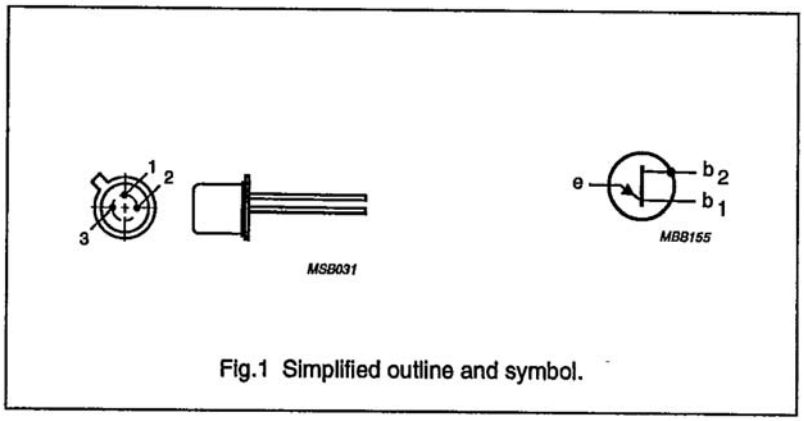
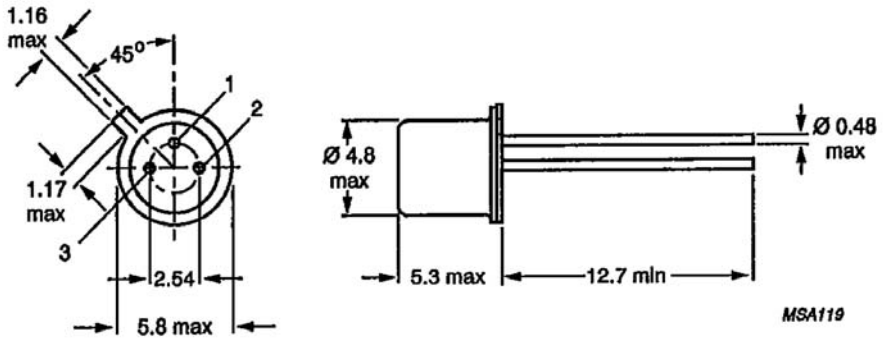


Fig.1 Simplified outline and symbol.



Dimensions in mm.

Information furnished is believed to be accurate and reliable. However, CS assumes no responsability for the consequences of use of such information nor for errors that could appear.
Data are subject to change without notice.