

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 trigger in high power SCR's.

Compliance to RoHS

ABSOLUTE MAXIMUM RATINGS

Symbol	Ratings	2N2646 – 2N2647	Unit
V _{B2E}	Emitter-Base2 Voltage	30	V
l _e	RMS Emitter Current	50	mA
i _e	Peak Pulse Emitter Current *	2	А
V _{B2B1}	Interbase Voltage	35	V
PD	RMS power Dissipation	300	mW
TJ	Junction Temperature	-65 to +125	C
T _{Stg}	Storage Temperature	-65 to +150	C

T_i=125℃ unless otherwise noted

Capacitor discharge -10μ F or less, 30volts or less.

ELECTRICAL CHARACTERISTICS

TC=25℃ unless otherwise noted

Symbol	Ratings		Min.	Тур.	Max.	Unit
η	Intrinsic stand-off ratio	2N2646	0.56	-	0.75	
	V _{B2B1} = 10V	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 $V_{B2B1} = 10V$, $I_E = 50 \text{ mA}$		-	15	-	V
I _{EO}	Emitter Revers Current $V_{B2E} = 30 \text{ V}$, $I_{B1} = 0$		-	-	12	μA
V _{(BR)B1E}	Base 1 Emitter breakdown Voltage I _E =100 μΑ		30	-	-	V
I _V	Valley Current , $V_{B2B1} = 20 V$	2N2646	4	-	-	mA
		2N2647	8	-	-	
l _P	Peak Current , $V_{B2B1} = 25 V$	2N2646	-	-	5	μA
		2N2647	-	-	2	



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MECHANICAL DATA CASE TO-18 (Case 22A-01 – Style 1)

Base 2 connected to case.

PIN	DESCRIPTION			
1	emitter			
2	base 1			
3	base 2			





Dimensions in mm.

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