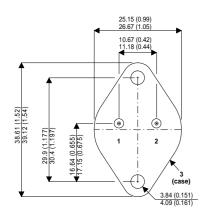
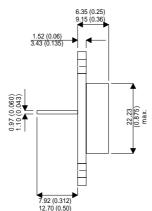




NPN BIPOLAR MULTI-EPITAXIAL POWER TRANSISTOR





FEATURES

- LOW V_{CE(SAT)}
- FAST SWITCHING

APPLICATIONS

 SUITABLE FOR POWER SUPPLIES AND OTHER HIGH VOLTAGE SWITCHING APPLICATIONS.

TO3 (T0-204AA)

Pin 1 - Base Pin 2 - Emitter Case - Collector

ABSOLUTE MAXIMUM RATINGS (When mounted on a suitable header)

V_{CEX}	Collector – Emitter Voltage $(V_{BE} = -1.5V)$	210V
V_{CEO}	Collector – Emitter Voltage $(I_B = 0)$	160V
V_{EBO}	Emitter – Base Voltage	8V
$I_{\mathbb{C}}$	Collector Current	25A
I _{CM}	Collector Current (Peak)	50A
I _B	Base Current	8A
T_{stg}	Storage Temperature	–65 to 200°C
T _j	Maximum Operating Junction Temperature	200°C

Semelab PIc reserves the right to change test conditions, parameter limits and package dimensions without notice. Information furnished by Semelab is believed to be both accurate and reliable at the time of going to press. However Semelab assumes no responsibility for any errors or omissions discovered in its use. Semelab encourages customers to verify that datasheets are current before placing orders.

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ELECTRICAL CHARACTERISTICS (When mounted on a suitable header)

Parameter		Test Conditions		Min.	Тур.	Max.	Unit
V _{CEO(BR)*}	Collector – Emitter	I _C = 200mA	I _B = 0	160			V
	Breakdown Voltage						V
I _{CEV}	Collector - Emitter Current	V _{CE} = 260V	$V_{BE} = -1.5V$			50	Λ
I _{EBO}	Emitter Cut-off Current (I _C = 0)	V _{BE} = -8V	I _C = 0			100	μΑ
V _{CE(sat)*}	Collector - Emitter	1 25A	I _B = 2.5A			1.5	V
	Saturation Voltage	I _C = 25A					
V _{BE(sat)*}	Base - Emitter Saturation Voltage	I _C = 25A	I _B = 2.5A			1.8	V
h _{FE}	DC Current Gain	I _C = 1A	V _{CE} = 2V	30			_
		I _C = 10A	V _{CE} = 2V	25		100	
		I _C = 25A	V _{CE} = 2V	15			
h _{fe}	Small Signal Current Gain	I _C = 1A	V _{CE} = 10V	4		20	_
		f = 5MHz					
I _{S/B}	Second Breakdown Collector Current	I _C = 11.1A	V _{CE} = 18V	1			S
C _{ob}	Output Capacitance	V _{CE} = 10V	f = 0.1MHz	300		650	pF
f _T	Transition Frequency	I _C = 1A	V _{CE} = 10V	20		100	MHz

^{*}Pulse Test : t_p = 300 μs , $\delta \leq$ 2%.

SWITCHING CHARACTERISTICS (When mounted on a suitable header)

	Parameter Test Conditions		Min.	Тур.	Max.	Unit				
SWITCHING TIMES ON RESISTIVE LOAD										
t _d	Delay time	L ₂ = 25A				0.1				
t _r	Rise time	$I_C = 25A$ $V_{BE} = -4V$			0.6	μS				
t _s	Storage time	V _{BE} = −4V I _{B1} = −I _{B2} = 2.5A					1.5			
t _f	Fall time	$_{\rm IB1} ={\rm IB2} = 2.3A$			0.25					
TURN OFF SWITCHING CHARACTERISTICS – INDUCTIVE LOAD										
+	Vo=/ lo	$I_C = 25A$ $V_{CC} = 80V$	V _{BE} = −4V							
t _c	t _c V _{CE} / I _C Crossover Time	$I_C = 25A$ $V_{CC} = 80V$ $V_{clamp} = 210V$ $R_c \le 4\Omega$	$L = 25\mu H$			0.5	μS			
Clossover fillie		$I_{B1} = -I_{B2} = 3A$								

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