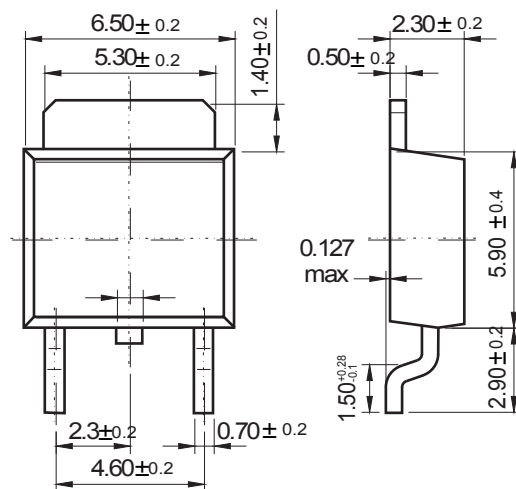


Applications

Electronic Ballasts For Fluorescent
Lighting And Changer

TO-252

Unit: mm



Dimensions in inches and (millimeters)

Absolute Maximum Ratings (Ta=25°C)

Parameter	Symbol	Value	Unit
Collector-Base Voltage	BV_{CBO}	700	V
Collector-Emitter Voltage	BV_{CEO}	420	V
Emitter-Base Voltage	BV_{EBO}	9	V
Collector Current	I_C	1.0	A
Collector Power Dissipation	P_C	1.2	W
Junction Temperature	T_j	150	°C
Storage Temperature	T_{stg}	-55 ~ +150	°C

13003

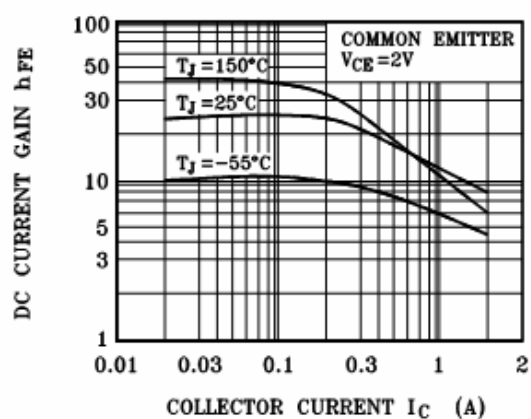
Electrical Characteristics (Ta=25°C)

Parameter	Symbol	Conditions	Value			Unit
			Min	Typ	Max	
Collector-base breakdown voltage	BV_{CBO}	$I_C = 100\mu A, I_E = 0$	700			V
Collector-emitter breakdown voltage	BV_{CEO}	$I_C = 10mA, I_B = 0$	420			V
Emitter-base breakdown voltage	BV_{EBO}	$I_E = 100\mu A, I_C = 0$	9			V
Collector cut-off current	I_{CBO}	$V_{CB} = 700V, I_E = 0$			100	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = 9V, I_C = 0$			100	μA
DC current gain*	h_{FE}	$V_{CE} = 5V, I_C = 0.2A$	10		40	
Collector-emitter saturation voltage*	$V_{CE(sat)}$	$I_C = 0.5A, I_B = 0.1A$			0.8	V
Base -emitter saturation voltage*	$V_{BE(sat)}$	$I_C = 0.5A, I_B = 0.1A$			1.5	V
Current Gain Bandwidth Product	f_T	$V_{CE} = 10V, I_B = 100mA$	8			MHz
Turn On Time	t_f	$V_{CC} = 125V, I_C = 0.5A$			0.5	μs
	t_s	$I_{B1} = -I_{B2} = 0.1A$			4	μs

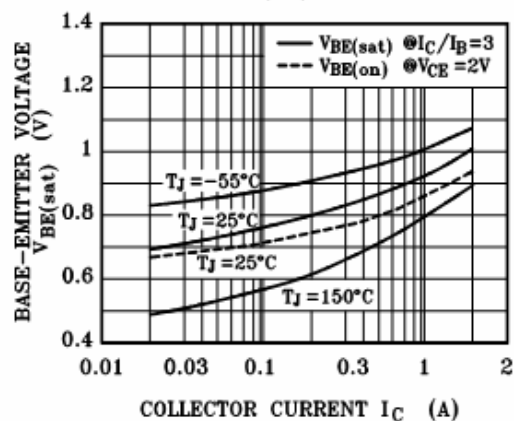
**Pulsed: Pulse duration = 300 μ s, duty cycle 1.5 %

RATING AND CHARACTERISTIC CURVES (13003)

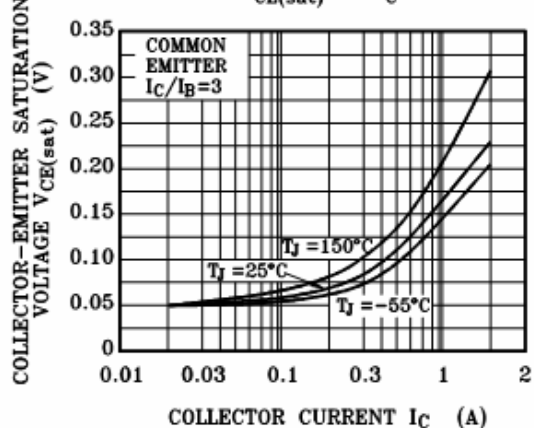
DC CURRENT GAIN



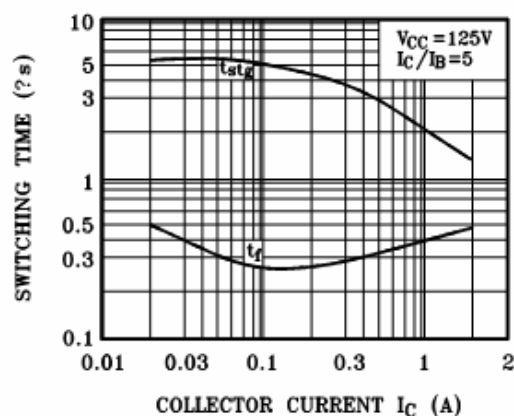
$V_{BE(sat)} - I_C$



$V_{CE(sat)} - I_C$



SWITCHING CHARACTERISTIC



$P_C - T_a$

