

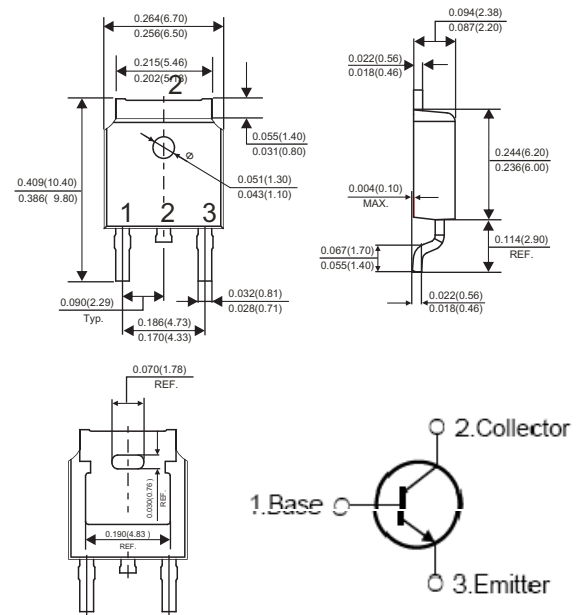
TO-252
ROHS
COMPLIANT

Pb-Free
Features

- Excellent Switching Times
: $t_{on}=1.1\mu S(\text{Max.})$, $t_f=0.7\mu S(\text{Max.})$, at $I_C=1.65A$
- High Collector Voltage : $V_{CBO}=800V$

MAXIMUM RATINGS ($T_a=25^\circ C$)

CHARACTERISTIC		SYMBOL	RATING	UNIT
Collector-Base Voltage		V_{CBO}	800	V
Collector-Emitter Voltage		V_{CEO}	450	V
Emitter-Base Voltage		V_{EBO}	9	V
Collector Current	DC	I_C	1.65	A
	Pulse	I_{CP}	3.3	
Base Current		I_B	0.9	A
Collector Power Dissipation ($T_c=25^\circ C$)		P_C	25	W
Junction Temperature		T_j	150	$^\circ C$
Storage Temperature Range		T_{stg}	-65~150	$^\circ C$



Dimensions in inches and (millimeters)

ELECTRICAL CHARACTERISTICS ($T_a=25^\circ C$)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Emitter Cut-off Current	I_{EBO}	$V_{EB}=9V$, $I_C=0$	-	-	10	μA
DC Current Gain	$h_{FE(1)}$ Note	$V_{CE}=2V$, $I_C=1A$	19	-	36	
	$h_{FE(2)}$	$V_{CE}=2V$, $I_C=1.65A$	5	-	25	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=0.5A$, $I_B=0.1A$	-	-	0.5	V
		$I_C=1A$, $I_B=0.25A$	-	-	1	
		$I_C=1.65A$, $I_B=0.5A$	-	-	3	
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=0.5A$, $I_B=0.1A$	-	-	1	V
		$I_C=1.65A$, $I_B=0.25A$	-	-	1.2	
Collector Output Capacitance	C_{ob}	$V_{CB}=10V$, $f=0.1MHz$	-	21	-	pF
Transition Frequency	f_T	$V_{CE}=10V$, $I_C=0.1A$	4	-	-	MHz
Turn-On Time	t_{on}		-	-	1.1	μS
Storage Time	t_{stg}		-	-	4.0	μS
Fall Time	t_f		-	-	0.7	μS

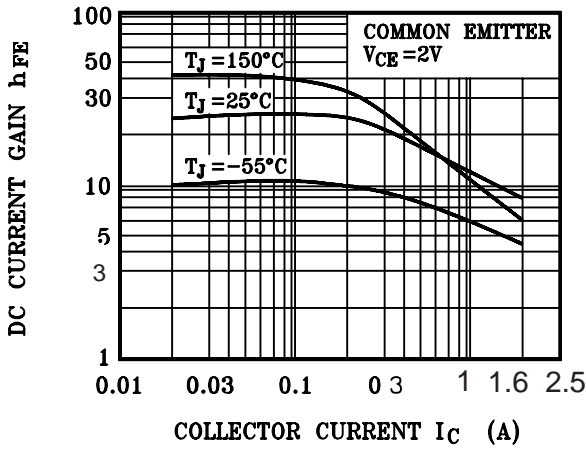
CLASSIFICATION OF $h_{FE(1)}$

Range	15-20	20-25	25-30	30-35

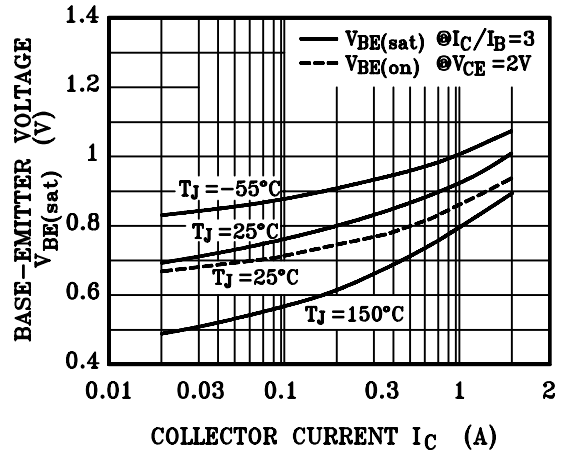


Typical Characteristics

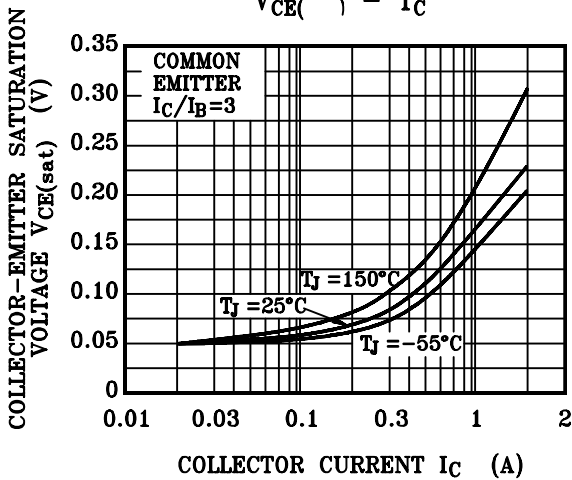
DC CURRENT GAIN



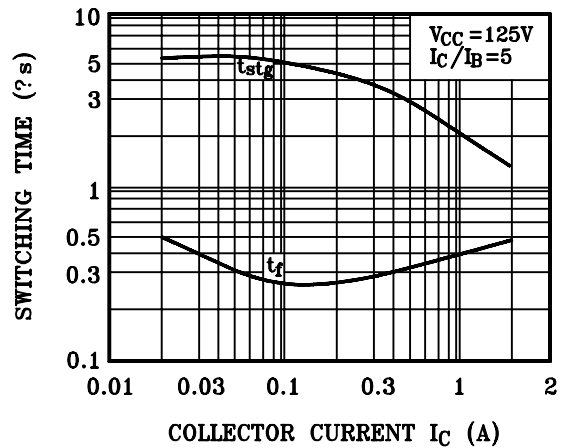
$V_{BE(sat)} - I_C$



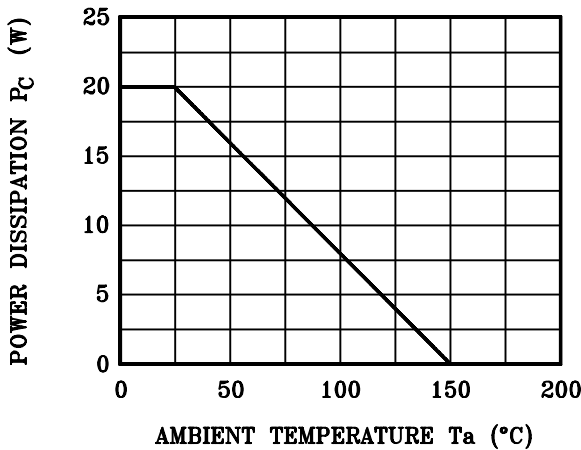
$V_{CE(sat)} - I_C$



SWITCHING CHARACTERISTIC



$P_c - T_a$



SAFE OPERATING AREA

