

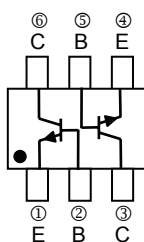
RoHS Compliant Product
A suffix of "-C" specifies halogen & lead-free

FEATURES

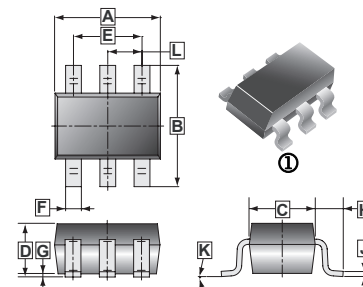
- Two chips in a package.
- Mounting possible with SOT-363 automatic mounting machines.
- Transistor elements are independent, eliminating interference.
- Mounting cost and area be cut in half.

MARKING

X18



SOT-363



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	2.00	2.20	G	0.100	REF.
B	2.15	2.45	H	0.525	REF.
C	1.15	1.35	J	0.08	0.15
D	0.90	1.10	K	8°	
E	1.20	1.40	L	0.650 TYP.	
F	0.15	0.35			

NPN ABSOLUTE MAXIMUM RATINGS (T_A = 25°C unless otherwise specified)

Parameter	Symbol	Ratings	Unit
Collector-Base Voltage	V _{CB0}	15	V
Collector-Emitter Voltage	V _{CE0}	12	V
Emitter-Base Voltage	V _{EBO}	6	V
Collector Current	I _C	0.5	A
Collector Power Dissipation	P _C	0.15	W
Junction & Storage temperature	T _J , T _{STG}	150, -55 ~ 150	°C

NPN ELECTRICAL CHARACTERISTICS (T_A = 25°C unless otherwise specified)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Conditions
Collector-Base Breakdown Voltage	V _{(BR)CBO}	15	-	-	V	I _C =10μA, I _E =0
Collector-Emitter Breakdown Voltage	V _{(BR)CEO}	12	-	-	V	I _C =1mA, I _B =0
Emitter-Base Breakdown Voltage	V _{(BR)EBO}	6	-	-	V	I _E =10μA, I _C =0
Collector Cut-Off Current	I _{CBO}	-	-	100	nA	V _{CB} =15V, I _E =0
Emitter Cut-off Current	I _{EBO}	-	-	100	nA	V _{EB} =6V, I _C =0
DC Current Gain	h _{FE}	270	-	680		V _{CE} =2V, I _C =10mA
Collector-Emitter Saturation Voltage	V _{CE(sat)}	-	-	0.25	V	I _C =200mA, I _B =10mA
Transition Frequency	f _T	-	320	-	MHz	V _{CE} =2V, I _E =-10mA, f=100MHz
Collector Output Capacitance	C _{OB}	-	7.5	-	pF	V _{CB} =10V, I _E =0, f=1MHz

TYPICAL CHARACTERISTICS

UMX18N

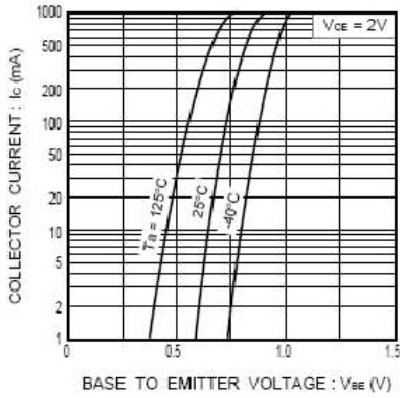


Fig.1 Grounded emitter propagation characteristics

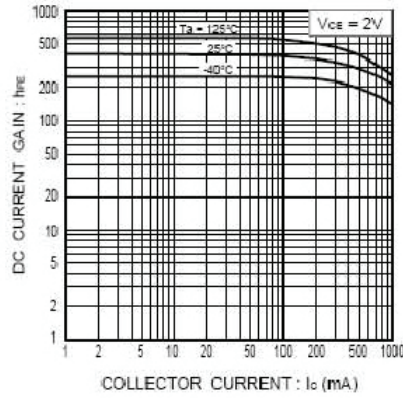


Fig.2 DC current gain vs. collector current

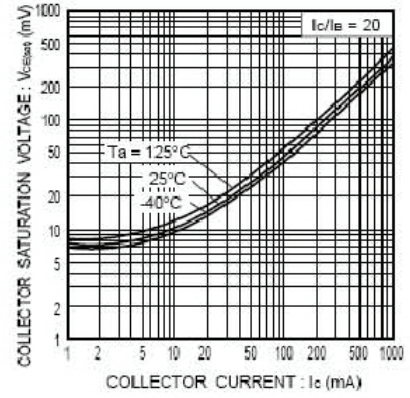


Fig.3 Collector-emitter saturation voltage vs. collector current (I)

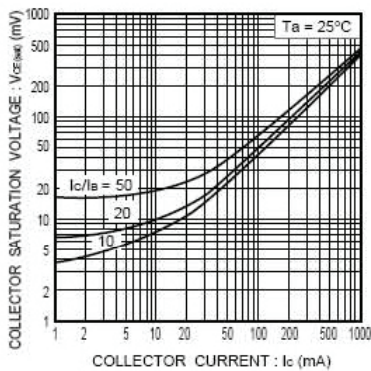


Fig.4 Collector-emitter saturation voltage vs. collector current (II)

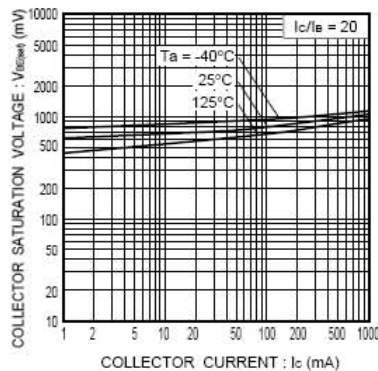


Fig.5 Base-emitter saturation voltage vs. collector current

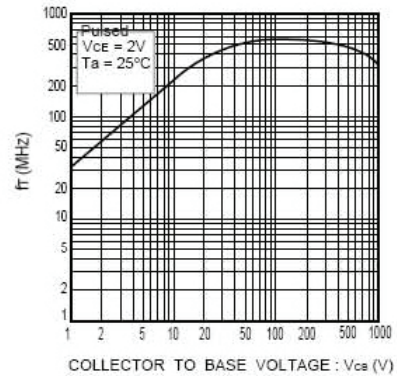


Fig.6 Gain bandwidth product vs. emitter current

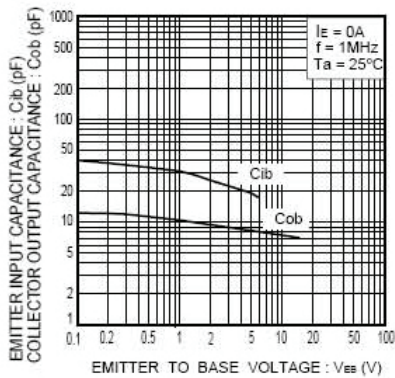


Fig.7 Collector output capacitance vs collector-base voltage
Emitter input capacitance vs emitter-base voltage