

**2N2432A**

**ELECTRICAL DATA (ABSOLUTE MAXIMUM RATINGS)**

PARAMETER	SYMBOL	2N2432/4138	2N2432A	UNITS
Collector - Emitter Breakdown Voltage	BV <sub>CEO</sub>	30	45	V
Collector - Base Breakdown Voltage	BV <sub>CBO</sub>	30	45	V
Emitter - Base Breakdown Voltage	BV <sub>EB0</sub>	15	18	V
Emitter - Collector Breakdown Voltage	BV <sub>ECO</sub>	15	18	V
Collector Current	I <sub>C</sub>	100		mA
Power Dissipation (Free Air @ 25°C)	P <sub>D</sub>	*300		mW
Power Dissipation (Case @ 25°C)	P <sub>C</sub>	**600		mW
Storage Temperature Range	T <sub>stg</sub>	-65°C to 200°C		
Lead Temp. (1/16" From Case)	T <sub>L</sub>	300°C for 10 sec.		

**ELECTRICAL CHARACTERISTICS: T<sub>A</sub> = 25°C (UNLESS OTHERWISE NOTED)**

PARAMETER	SYMBOL	TEST CONDITIONS	2N2432A		2N2432-2N4138		UNIT
			MIN.	MAX.	MIN.	MAX.	
Collector - Emitter Breakdown Voltage	BV <sub>CEO</sub>	I <sub>C</sub> = 10mA, I <sub>B</sub> = 0	45		30		V
Collector - Base Breakdown Voltage	BV <sub>CBO</sub>	I <sub>C</sub> = 100μA, I <sub>E</sub> = 0	45		30		V
Emitter - Collector Breakdown Voltage	BV <sub>ECO</sub>	I <sub>E</sub> = 100μA, I <sub>B</sub> = 0	18		15		V
Collector to Base Leakage	I <sub>CBO</sub>	V <sub>CB</sub> = 25V, I <sub>E</sub> = 0		10		10	nA
Collector to Emitter Leakage	I <sub>CES</sub>	V <sub>CE</sub> = 25V, V <sub>BE</sub> = 0		10		10	nA
Collector to Emitter Leakage	I <sub>CES</sub>	V <sub>CE</sub> = 25V, V <sub>BE</sub> = 0, T <sub>A</sub> = 125°C		250		250	nA
Emitter to Base Leakage	I <sub>EB0</sub>	V <sub>EB</sub> = 15V, I <sub>C</sub> = 0		2		2	nA
Emitter to Collector Leakage	I <sub>ECS</sub>	V <sub>EC</sub> = 15V, V <sub>BC</sub> = 0		2		2	nA
Emitter to Collector Leakage	I <sub>ECS</sub>	V <sub>EC</sub> = 15V, V <sub>CB</sub> = 0, T <sub>A</sub> = 125°C		200		200	
D.C. Common Emitter Forward Current Transfer Ratio	h <sub>FE</sub>	V <sub>CE</sub> = 5V, I <sub>C</sub> = 10μA	30		30		
D.C. Common Collector Forward Current Transfer Ratio	h <sub>FC</sub>	V <sub>EC</sub> = 5V, I <sub>E</sub> = 200μA	3		2		
Collector - Emitter Saturation Voltage	V <sub>CE(sat)</sub>	I <sub>B</sub> = 0.5mA, I <sub>C</sub> = 10mA		0.15		0.15	V
Offset Voltage	V <sub>O</sub>	I <sub>B</sub> = 200μA, I <sub>E</sub> = 0		0.4		0.5	mV
Offset Voltage	V <sub>O</sub>	I <sub>B</sub> = 1mA, I <sub>E</sub> = 0		0.7		1.0	mV
Inverted Dynamic Saturation Resistance	r <sub>EC(sat)</sub>	I <sub>B</sub> = 1mA, I <sub>E</sub> = 100μA, f = 1kHz		15		20	Ohm
Small - Signal Common Emitter Forward Current Transfer Ratio	h <sub>re</sub>	V <sub>CE</sub> = 5V, I <sub>C</sub> = 1mA, f = 20MHz	1		1		
Common - Base Open Circuit Output Capacitance	C <sub>obo</sub>	V <sub>CB</sub> = 0, I <sub>E</sub> = 0, f = 140kHz		12		12	pf
Collector - Base Open Circuit Input Capacitance	C <sub>cb</sub>	V <sub>CB</sub> = 0, I <sub>E</sub> = 0, f = 1MHz		12		12	pf
Common - Base Open Circuit Input Capacitance	C <sub>ibo</sub>	V <sub>EB</sub> = 0, I <sub>C</sub> = 0, f = 140kHz		12		12	pf
Emitter - Base Open Circuit Output Capacitance	C <sub>eb</sub>	V <sub>EB</sub> = 0, I <sub>C</sub> = 0, f = 1MHz		12		12	pf

